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ABSTRACT

This report describes a project undertaken at the University of Tennessee, Knoxville (UTK) between January 1, 1982 and March 31, 1984, which was designed to increase the use in program assessment and in program improvement of information derived from measures of: (1) student achievement in general education; (2) student achievement in the major field; and (3) student opinions concerning the quality of academic programs and services. After a brief program description, the origins of the UTK project are examined, including proposal development, the student outcome data available, and goals of the campus project. Project operations are then reported including the following topics: project structure and organization; project activities; campus involvement strategies; data presentation strategies; and project continuation. Project impact included: changes in curriculum and instruction (e.g., participation in one or more evaluative procedures was made mandatory for students); changes in student services (e.g., improved advising services); and changes in institutional planning and evaluation activities (e.g., increased use of student outcome information in major field program evaluation). The major portion of the document consists of 12 appendixes which provide details of the program's activities and findings. (DB)

The NCHEMS/Kellogg Student Outcomes Project

at the

University of Tennessee, Knoxville

FINAL REPORT

1982-84

April 1984

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Program Description

The NCHEMS/Kellogg Student Outcomes Project undertaken at the University of Tennessee, Knoxville (UTK) between January 1, 1982 and March 31, 1984 was designed to increase the use in program assessment and improvement of information derived from measures of (a) student achievement in general education, (b) student achievement in the major field, and (c) student opinion concerning the quality of academic programs and services. The project was initiated to address a generally recognized need to integrate and make more use of information derived from tests and surveys administered in connection with (a) students' entry to the University, (b) accreditation self studies and peer reviews, and (c) the institution's own comprehensive academic program reviews. Recognition of this need was intensified by the necessity to respond to the instructional evaluation (or "performance funding") requirements established in 1979 for all the state's publicly supported institutions of higher education by the Tennessee Higher Education Commission (THEC). Under the instructional evaluation program, up to five percent of an institution's annual state budgetary allocation is to be awarded on the basis of evidence demonstrating the accomplishment of the following performance criteria (See Appendix 1 for the complete schedule of criteria):

a) calculating the percentage of programs eligible for accreditation that is accredited.

b) calculating the percentage of programs which, within a five year period, has undergone peer review and/or administered to majors a comprehensive field exam. Maximum credit for this standard is awarded if student performance on the field exam improves over time or exceeds the performance of students in similar programs at comparable institutions.

c) measuring value added via the general education component of the curriculum using the American College Testing College Outcome Measures Project exam (ACT COMP) and demonstrating that performance of seniors exceeds the mean of value added computed for seniors at a group of comparable institutions.

d) conducting surveys of enrolled students, alumni, community members, and/or employers and demonstrating that generalizations about the quality of academic programs or services derived from the surveys have formed the bases for specific improvements in campus programs/services.

e) implementing a campus-wide plan for instructional improvement based on information derived from procedures 1-4 above, as well as other sources.

The University of Tennessee, Knoxville is a land-grant institution, and Tennessee's major comprehensive university. Its mission encompasses instruction, research, and public service. In Fall 1983 approximately 26,500 students (20,500 undergraduates and 6000 graduate students) were enrolled in one of the institution's 170 undergraduate or 168 graduate programs. The size of the student body and faculty, and the diversity of academic programs offered, make UTK an appropriate environment for a large-scale demonstration of the application of student outcome information in comprehensive program evaluation in higher education.

Origins of the UTK Project

Proposal Development

The opportunity to respond in the summer of 1981 to a request for proposals from NCHEMS and the Kellogg Foundation on the topic of increasing the use of student outcome information provided a focal point for a rather vaguely recognized notion that the University of Tennessee, Knoxville was collecting a great deal of information about students that could be used much more efficiently and effectively within the institution. For freshmen, ACT scores and data from the accompanying Class Profile Report had been accumulating for mor than a decade. Until 1981 additional information on freshmen had been collected via the Cooperative Institutional Research Program (CIRP) questionnaire. Group means for scores achieved by seniors on licensing exams, Graduate Record Exams, and other comprehensive assessments were compiled for inclusion in self-study documents prepared for accreditation reviews and the internal comprehensive program review process. In addition, some units had conducted surveys of student and/or alumni opinion regarding the quality of academic programs and services. A two-year study of general education initiated by Chancellor Jack Reese in 1979 had prompted the faculties of most colleges to undertake student surveys and analyses of student records that produced a body of information on student curricular choices within the University. Prior to 1981 data from these disparate sources were stored in individual files across the campus; no office had been charged with the responsibility of attempting to integrate the information and use it in an institution-wide comprehensive program evaluation process.

At the time that the NCHEMS-Kellogg RFP arrived two other developments were pushing campus administrators toward formal acknowledgement of the need to develop a more systematic approach to collection and use of outcome information at UTK. In Fall 1979 the Tennessee Higher Education Commission introduced an Instructional Evaluation Schedule as a supplement to its enrollment-based formula for allocating state funds among institutions. The Schedule contained the outline of an institution-wide approach to gathering evidence of student achievement in general education and in the major field, and of student opinion concerning academic programs and services. In addition, the Executive Vice Chancellor for Business, Planning and Finance, Homer Fisher, undertook a strategic planning initiative in 1981 that placed new emphasis on the assessment of outcomes in setting institutional priorities and making decisions about the allocation of resources.

The NCHEMS-Kellogg project was viewed by Chancellor Reese and his staff as a vehicle for organizing a careful study of the kinds and the quality of student information available to the campus and making recommendations for improving its quality and increasing its use in planning and decision-making. The chief advocate for involving the University in the project was Trudy Banta, a professor from the College of Education who was participating in an administrative internship in the Office of the Chancellor in 1981. Banta's background in educational measurement and program evaluation prompted her interest in providing leadership for an effort to integrate student outcome information in comprehensive institutional program evaluation.

The kinds of student information described in the foregoing paragraphs were stored in the offices of deans across the campus, in the Office of Admissions and Records in the Division of Student Affairs, and in the Office of Institutional Research in the Division of Business, Planning and Finance. The new responsibility for coordinating the response to the THEC Instructional Evaluation Schedule had been assigned to yet another potential repository for data: The Learning Research Center, an independent academic unit responding directly to the Provost, charged with evaluating and improving curriculum and instruction on the campus . The decision was made to relocate Professor Banta upon conclusion of her internship in the Chancellor's Office in the Learning Research Center for the purpose of conducting the NCHEMS-Kellogg project. Assigning the project to Provost George Wheeler strengthened its linkage with the academic program review process -- also conducted by the

Office of the Provost -- and with strategic planning carried out by the Planning and Budgeting Coordinating Committee co-chaired by Wheeler and Fisher.

The Project proposal was written by Trudy Banta, then reviewed by members of the Chancellor's staff, selected deans, and the Director of the Learning Research Center. All of these individuals expressed strong support, and letters of endorsement for the proposal were received from:

(a) Chancellor Jack Reese;

(b) The Vice Chancellors for Student Affairs and for Business, Planning and Finance;

(c) The Associate Vice President for Academic Affairs;

(d) The Dean of the Graduate School;

(e) The Dean of the College of Business; and

(f) The Director of the Learning Research Center.

Student Outcome Data Available

While the principal focus of the NCHEMS-Kellogg project was upon outcome data, outcomes can be measured most accurately if compared with the results of appropriate input measures. Thus an important source of the information to be considered was the data on entering freshmen provided by ACT. Information from the CIRP instrument also was considered for the years during which it was available.

The types of information required for accreditation self-studies vary from one discipline to another. The guidelines for the self-study to be conducted in preparation for the internal program review at UTK are presented in Appendix 2. Some departments included in these reports information from one or more of the following sources:

(a) the ACT COMP exam in general education, which had been administered annually to seniors since 1980;

(b) the Graduate Record Exam, comprehensive assessments of achievement in the major field, and professional examinations in architecture, education, engineering, nursing, social work, law, and planning;

(c) surveys of enrolled students such as the ACT Student Opinion Survey administered to a UTK sample in 1980 and in 1981;

(d) surveys of program graduates; and

(e) surveys of employers of program graduates.

Selected results of the study of general education undertaken in the College of Liberal Arts in 1979 were published by the Learning Research Center in 1980 in a document entitled, Teaching/Learning Issues: Current

Student and Unit Curricular Practice in the College of Liberal Arts, University of Tennessee, Knoxville. The campus-wide study resulted in the development of the document "Interim Report of the Coordinating Committee on General Education", which appears in Appendix 3.

The foremost concern about all of these data was their validity: Skeptical faculty and administrators wondered if the instruments being used to measure outcomes actually were measuring the outcomes on which UTK academic programs were based. Were the data obtained by using so-called "objective" measuring instruments -- exams and surveys -- providing better information than University personnel could obtain by talking with a few selected students, alumni, or employers? Was the expense of systematic data collection justified by an increase in validity when results were compared with those derived from the collective perceptions of faculty?

Data from the ACT Student Opinion Survey had been ignored almost universally. Would results obtained from some other instrument be more successful in attracting the attention of decision-makers?

Administrators receiving scores from some of the professional exams were concerned because their reports did not contain subscores -- scores in specialized areas of the discipline -- that would permit assessment of the adequacy of students' preparation in the various components of the curriculum.

A final concern about the student outcome information available at UTK was the absence of direction or motivation for integration of data from several sources to strengthen conclusions derived from each, and to increase the use of these conclusions in program planning for improvement. There was some recognition of the need to integrate data both within each discipline -- to provide a solid basis for recommending changes in curriculum and instruction within the program area -- and across disciplines -- to produce recommendations for strengthening institution-wide services such as registration, orientation, counseling, and placement. But there was no advocate in the central administration for the utilization of outcome information in these ways. Moreover, there was no force for encouraging or motivating campus units to collect from a variety of sources information bearing on the quality of their programs.

Goals of the Campus Project

The NCHEMS-Kellogg RFP held out the possibility of providing the impetus for some released time for the Project Director to organize and interpret the

various kinds of information from and about students that were accumulating in offices across the campus. Moreover, the opportunity to contact outside consultants was viewed as a potential source of assistance in identifying improvements that might be made in data-gathering methods and procedures, and in determining appropriate utilization strategies.

The principal goal of the project at the outset was to develop an organizational framework within the University for involving administrators, faculty, and students in every campus unit in planning directed toward increased use of student outcome information. As a practical matter, the domain of outcomes was restricted to the three areas that formed the core of the THEC Instructional Evaluation Schedule, i.e., student achievement in general education, student achievement in the major field, and student opinion concerning the quality of academic programs and services.

The primary goal of the project did not change, and ultimately it was achieved. However, the timeframe for full achievement was a year longer than had been anticipated initially. Whereas the first year of the project had been viewed as one of action and implementation, the readiness of the campus for widespread involvement in outcomes utilization had been overestimated. Consequently, the first year was devoted to deliberation and study of the feasibility and potential impact of collecting and using the types of outcome information specified in the THEC performance standards.

The campus commitment to the NCHEMS-Kellogg initiative did result in released time for the Project Director to provide a central focus for collection and use of outcome information. The opportunity to have Aubrey Forrest, consultant from ACT, come to the campus twice -- once for discussions and once for a more formal workshop on the measurement of achievement in general education -- constituted the most effective vehicle utilized during the project for involving faculty and students in the process of considering the use of outcomes measures.

The original proposal to NCHEMS indicated that at an early date -- during the 1982 Winter Quarter -- department heads would be asked to develop, with assistance from faculty and students, a written statement of the unit's plans to collect and use outcome information. However, between the time the proposal was submitted and the date the award was announced, the Project Director met individually with each of the nine deans of colleges enrolling undergraduates to obtain their impressions of the quality and usefulness of

outcome data currently available to them. This series of interviews revealed considerable dissatisfaction with the quality of much of the data and some skepticism about its usefulness. (See Appendix 4 for a sample interview transcript.) The experience indicated that a careful assessment of the adequacy of information-gathering methods needed to be undertaken before utilization strategies could be considered.

As a direct consequence of the interviews with academic deans, the first project activity in January 1982 was the convening of a Technical Advisory Council composed of deans' representatives -- in most cases the associate deans -- to undertake a detailed assessment of outcome information-gathering instruments and methods. The work initiated by this group, and the process of following up its recommendations, occupied two years. This interim phase was critical to further implementation of the primary project goal, and it resulted in the development of a number of important materials and strategies. In January 1984 the request for all department heads to develop plans for collecting and using outcome information finally was issued.

Project Operations

Project Structure and Organization

During 1982 the Project Director was a member of the Chancellor's staff, but also reported through the Director of the Learning Research Center (LRC) to the Provost (then the Vice Chancellor for Academic Affairs) for purposes of carrying out administrative functions related to the NCHEMS-Kellogg project. Initially the visibility provided the project by the linkage with the Chancellor's Office was very helpful. But the "Kellogg Project", as it came to be known, quickly established its own identity and continued without disruption when the Director's internship with the Chancellor was completed and she moved to the LRC.

In 1982 the LRC Director was advised by an Instructional Evaluation Advisory Committee (IEAC) that included the following individuals:

a) The Vice Chancellors for Student Affairs and Business and Finance,

b) The Assistant Vice President for Academic Affairs (UT system administration),

c) The Associate Vice Chancellors for Academic Affairs and for Planning and Administration,

d) The Deans for Graduate Studies and Business Administration,

e) Representatives of the Faculty Senate and the Student Government Association, and

5) Selected faculty with interest and expertise in measurement of outcomes.

The IEAC functioned as the oversight committee for the Kellogg Project.

In order to accomplish the initial studies of outcome information-gathering strategies on the campus a Technical Advisory Council (TAC) of deans' representative was established under the aegis of the IEAC. At the first meeting of the TAC the decision was made to form three task forces, one to carry out specialized investigations in each of the three targeted outcome areas: Achievement in general education, achievement in the major field, and opinion concerning the quality of programs and services. In each area faculty and graduate students with relevant expertise were selected and asked to join the deans' representatives on the task force.

For six months each of the task forces met at 3-4 week intervals for discussion and review of materials. The Project Director chaired all of the meetings and assumed the primary responsibility for developing the final report for each task force. The three task force reports (see Appendix 5) were reviewed in June 1982 by the TAC, and recommendations for action based on the reports were conveyed to the IEAC in a series of meetings of that group in June and July.

A key recommendation of the IEAC was that at least one pilot project focused on utilization of outcome information be carried out in each of nine colleges with Kellogg funds during 1982-83. Recommendations bearing on measurement of student opinion and achievement in general education were to be implemented centrally by LRC staff and interested faculty. After July 1982 meetings of the three task forces, the TAC, and the IEAC were called as the advice of each was needed to further the progress of the project. In administrative matters the Project Director relied upon the counsel and assistance of the LRC Director and two Vice Provosts with responsibilities for instructional evaluation and academic program review. By design the project became as rapidly as possible an integral part of the on-going intellectual environment and administrative structure of the University of Tennessee, Knoxville. Communications about project activities flowed through the established channels: Chancellor's staff (including the Provost), then from the Provost to the Board of Deans, and on to department heads and faculty.

Initial Project Activities

At its first meeting the Technical Advisory Council established three task forces and charged each with developing a report that would:

a) Identify one or more reliable, valid methods for measuring the student outcome(s) under consideration, including specifications for carrying out the methodology (i.e., sampling techniques, forms of instruments, motivation of subjects, testing conditions to be used);

b) Describe in detail the kinds of information each method could provide;

c) Identify inherent weaknesses/limitations associated with each method;

d) Estimate the cost of resources needed to implement each method; and

e) Suggest how the information obtained could be used, in combination with information from other sources, in program assessment, administrative decision-making, and planning for program improvement.

Each task force began its deliberations by confronting the issue of credibility: "Why should faculty and students spend time on formal tests and surveys designed to provide information about program quality that we have managed in the past to obtain informally by talking with students, colleagues, alumni and employers?" Independently each task force concluded that in facing increasing needs to demonstrate program quality, establish priorities for resource allocation, and justify programmatic emphases, each academic unit would be well served by having at its disposal systematically collected structured information from a variety of sources.

On June 3, 1982 the Technical Advisory Council for the Kellogg project held its second meeting. The three task force reports were reviewed and a procedure was outlined for implementing the recommendations that were included.

A composite rec mmendation drawn from the three reports suggested that student outcomes information be employed in each academic unit to provide evidence of program quality for the following purposes:

1) in communicating with alumni and friends of the University, students and their parents, professional colleagues;

2) in preparing for accreditation reviews;

3) in strategic planning;

4) in preparing for the comprehensive program review process;

5) in responding to the requirements of the THEC Instructional Evaluation Schedule.

Student outcomes information also could be used by the department and/or college to suggest:

1) changes in curriculum at the course level, i.e., course content updated or given new focus.
2) changes in curriculum at the program level, i.e., courses or content areas added or deleted.
3) areas for professional development of faculty.
4) addition of, or changes in, field experiences.
5) addition of, or changes in, seminars, colloquia, special events.
6) changes in advising procedures.
7) improvements in classroom or laboratory facilities and/or equipment.
8) additions to library collections.
9) improvements in campus-wide student services.

Specific recommendations of the task forces included the following:

1. The ACT COMP (College Outcome Measures Project) Objective Test should be given annually to all incoming freshmen and to all graduating seniors so that the comparisons of pre- and post-program scores may yield a measure of value added as a result of the educational experience provided at UTK.
2. Faculty in each academic unit should determine whether or not there is a standardized instrument available for measuring student achievement in the major field(s) of study offered by the unit. If an acceptable standardized instrument is available, the academic unit should require that every graduating senior take the examination. Mean scores for classes of students should be compared with national means in making judgments concerning program quality.

If the academic unit does not have access to a standardized test of student achievement in the major field of study, the faculty should develop or adapt one or more of the following methods:

a. evaluation by faculty of a comprehensive student achievement.
b. evaluation of a comprehensive student achievement by an external reviewer.
c. end-of-program assessment by seniors, reporting perceptions of their own achievement.
d. retrospective assessment of their own achievement by alumni.
e. assessment by employers of the competencies of alumni one or several years after graduation.

3. A measure of student satisfaction with academic programs and services should be developed and administered at least every other year to representative samples of (a) enrolled students and (b) recent graduates at UTK. The resulting information should be reviewed by an appropriate body such as the University-wide Instructional Evaluation Advisory Committee. Following comparison

of current data with that obtained in previous administrations of the instrument, and perhaps some follow-up interviewing to increase understanding of certain responses, the oversight group should issue a report on the findings to deans and department heads, including recommendations for program improvements that seem warranted.

In addition to the University-wide survey of student opinion, each college or department should conduct its own survey of currently enrolled majors and non-majors at least every other year and of alumni at least once every four years. A group of faculty with interests in curriculum development, program evaluation, measurement, and survey design and analysis should be established to oversee the implementation of this survey methodology -- to suggest student and course sampling procedures and to develop data analysis and reporting strategies.

On June 10, 1982 the Instructional Evaluation Advisory Committee held the first of several meetings for the purpose of considering the task force reports and the recommendations of the Technical Advisory Council. The Kellogg Project "Plan of Work" prepared in February 1982 described an intention to utilize task force findings in preparing a detailed request for all department heads to submit plans for using student outcome information by December 1982. The IEAC decided it was too soon to approach all department heads with such a request. Instead the decision was made to ask each of the nine deans of colleges enrolling undergraduates to submit one or more proposals for pilot projects designed to increase the use of student outcome information in a department or in the college. The argument was advanced that the experience of a few carefully selected and monitored pilot efforts would be instructive for other units when a general request for plans was issued in late 1983 or early 1984.

The IEAC also approved the TAC recommendations for administering centrally measurement programs for student and alumni opinion and student achievement in general education. Responsibility for those initiatives was vested in the Learning Research Center.

Early consideration of the Kellogg Project by members of the Chancellor's staff and the Board of Deans ensured that the individuals whose cooperation was essential to the success of the project were fully informed about it. The TAC recommended to the IEAC that a Chancellor's Newsletter with campus-wide distribution be prepared early in Fall Quarter 1982 to acquaint faculty with the aims of the project and progress to date. The IEAC considered that recommendation and decided instead to move more quietly

and cautiously, first building a base of successful experience in data collection and utilization both centrally and in pilot units before calling broad attention to the effort.

Subsequent Activities

As soon as the Instructional Evaluation Advisory Committee had concluded its review of the Technical Advisory Council's recommendations and had provided clear direction for the next phase of the Kellogg Project, the Project Director wrote to the nine deans to thank them for naming representatives to the TAC and to ask that these individuals be encouraged to continue their work in the same areas but as members of "advisory committees" rather than task forces. The three advisory committees would serve to oversee the implementation of IEAC-approved recommendations for measuring (a) student achievement in general education, (b) student achievement in the major field, and (c) student opinion of the quality of academic programs and services.

Next, the Project Director scheduled interviews with each of the nine deans and their representative(s) to the TAC. The purpose of this series of meetings, which took place in August 1982, was to review the work of the task forces and to encourage the deans to identify candidates for the pilot project awards.

The interviews with deans were extremely helpful -- as they had been in August 1981 -- in providing direction for implementing the IEAC recommendation on pilot projects. Without exception, each dean was able to identify during the interview a potential college-wide or department-based project idea.

In October the Project Director sent a letter to each dean (See Appendix 6) summarizing the project ideas discussed in August and suggesting that enclosed guidelines and an application form be used to submit one or more proposals by November 5. A budget of $350 - $1500 was suggested for each pilot project.

Early in the Fall Quarter the General Education Task Force, reconstituted as the Advisory Committee for General Education, met and recommended that Aubrey Forrest of the American College Testing program be invited to discuss with interested faculty a series of questions related to the meaning of ACT COMP scores attained by UTK students. NCHEMS-Kellogg consulting funds were utilized to bring Dr. Forrest to the campus in late October. Approximately

30 faculty and administrators attended the presentations, and many of those present expressed appreciation for the opportunity to clarify their understanding of the COMP exam and its purposes. Interest was generated in having Dr. Forrest return to the campus in the Spring to conduct a workshop for a broader segment of the faculty.

The Task Force on Student Opinion, reconstituted as an advisory committee, recommended that the Learning Research Center enter into a contractual agreement with Ken Van Liere, a professor in the Department of Sociology, and Bill Lyons, a professor in the Department of Political Science, who were interested in designing an instrument and appropriate survey methodology for measurement of student opinion concerning the quality of academic programs and services. The campus administration agreed that a locally developed instrument was needed to obtain information academic administrators would consider relevant and put to use. Therefore, a contract for services was developed for signature by appropriate parties, and a process was initiated that would result in administration of a pilot-tested instrument to a sample of 2200 enrolled students in April 1983.

Both the Advisory Committees on Student Opinion and Testing in the Major Field met in mid-November 1982 to evaluate the proposals for pilot projects that were submitted by the nine deans. This was not a competitive process as had been anticipated at the outset because each dean had selected the most promising proposal(s) from the unit, and the Project Director wanted representation from each college. The advisory groups were helpful, nevertheless, in suggesting how some of the pilot projects might be improved through additional directions in the letter that would be sent to each dean to announce the award(s). A brief description of the projects that were proposed appears in Table 1. The total cost of these activities was $20,500. Approximately $9000 in Kellogg funds were committed for the pilot projects. The University administration added $11,500 to the Learning Research Center budget to complete the funding package.

The fact that all proposals for pilot projects involved the collection of new data attested to the fact that most UTK administrators either had no student outcome data or were not satisfied with the quality of that which was available. Despite the apparent emphasis on data collection, however, the proposal guidelines and subsequent communications with directors of the projects emphasized the need for utilization of the resulting information in

Table 1. Description of UTK Kellogg Pilot Projects

Unit Proposing the Project		Description of Project	Amount of Project Award
Agriculture		Locally developed comprehensive exam	$1500
Architecture		Survey of graduates	700
Business		Survey of enrolled students using Tellus technology that permits self-report and instantaneous tabulation of responses	500
Communications		Survey of graduates	700
Education		Surveys of enrolled students and graduates in Recreation programs	500
Engineering		Survey of enrolled students	350
Home Economics		Interviews with employers of graduates of Textiles, Merchandising, and Design programs	550
Liberal Arts			
	Biology	Graduate Record Exams for seniors	12,700
	Botany	" "	
	English	" "	
	History	" "	
	Microbiology	" "	
	Psychology	" "	
	Zoology	" "	
	Geography	Locally developed comprehensive exam	1,500
Nursing		Mosby AssessTest for seniors	1,500
			$20,500

combination with that from other sources to make decisions and take action designed to improve programs and services. Award letters were sent to deans and the appropriate department heads in December and projects were initiated January 1, 1983.

In order to ensure that representative samples of students actually would take the tests in general education and in the major field that had been proposed by the Kellogg task forces, it was necessary to add to the University catalog a requirement that students participate in one or more evaluative

procedures prior to graduation. Drafting a statement that met with approval of academics as well as the University's legal counsel; taking this statement to committees, the Undergraduate Council, and eventually the Faculty Senate; and gaining the faculty support necessary to pass the proposed requirement at each of these levels of the governance structure took much of the Project Director's time and energy during November, December, and January. The vote on the requirement (see Appendix 7) in the Faculty Senate on January 18, 1983 was affirmative. Subsequently all candidates for graduation were informed that they must take the COMP exam in general education if selected to do so, OR take a comprehensive exam in their major field, OR complete the Student Satisfaction Survey (designed by Van Liere and Lyons) at the Career Planning and Placement Center.

In February at the NCHEMS-Kellogg Project Director's Meeting in Boulder, the Project Director developed an idea that resulted in the addition of a significant piece of work to the scope of the UTK project. Interaction with other project directors in Boulder led to the recognition that the unique performance funding initiative in Tennessee was of interest to higher education personnel throughout the country: It seemed appropriate to chronicle the University of Tennessee's assessment of and response to the THEC Instructional Evaluation Schedule as these processes were assisted by the Kellogg Project. Back on the campus in Knoxville, a month was spent in identifying a dozen faculty and administrators who were willing to serve as authors, and in mid-March the first of several multi-hour sessions was held for the purpose of developing a monograph entitled, Performance Funding in Higher Education: A Critical Analysis.

By mid-March 1983 the Kellogg Project at UTK was well positioned to achieve the results envisioned by the IEAC in July 1982. Three advisory committees were providing direction for initiatives to be undertaken by the LRC with the support of the central administration, the pilot projects were proceeding with minimal needs for leadership from anyone outside the units conducting the projects, and the monograph team had embarked on its assignment. The stage was set for accomplishing the results described in succeeding paragraphs.

In March a sample of seniors representative of the range of grade point averages within each of the nine undergraduate colleges was selected to take the ACT COMP exam on May 7. Each dean sent personal letters to the seniors

selected to represent his or her college. Hearings were scheduled to review individuals' concerns about the testing date, and an alternative date was established for those seniors who could not come for testing on May 7. By the end of May approximately 700 seniors had taken the test.

Seven Liberal Arts department heads contacted seniors enrolled in their programs and asked them to take the Graduate Record Advanced Test in their field. On April 15, 277 seniors took the Graduate Record Exam at UTK.

In April Kent Van Liere and Bill Lyons administered the Student Satisfaction Survey to a random sample stratified by college of 2200 enrolled students. In addition, samples were drawn from the students in five selected departments (Human Services; Marketing & Transportation; Biology; Textiles, Merchandising & Design; and Political Science) in order to provide information at the departmental as well as college and university-wide levels. More than 70 percent of the students surveyed returned completed questionnaires.

On May 10 Aubrey Forrest visited the campus again, this time to conduct a workshop for faculty on the measurement of achievement in general education using the ACT COMP exam. Nine deans were asked to identify a designated number (from 3 for the smallest colleges to 15 for Liberal Arts) of faculty with interests in general education. A letter was sent from the Director of the Learning Research Center inviting each of the faculty members identified by the deans to attend one of two identical workshop sessions -- one scheduled for 9 a.m. to 12 noon, the other from 1:30 to 4:30 p.m. At noon a luncheon was held at the Faculty Club for participants in both morning and afternoon sessions. The officers of the Student Government Association also were invited to attend a workshop session, and four of them did so, including the President and Vice President. Discussion generated during the workshop indicated a high level of interest in Dr. Forrest's presentation.

Campus Involvement Strategies

The Kellogg Project provided the impetus for establishing in the Learning Research Center a central focus for collection, analysis, and use of credible outcome information at UTK. Through a series of careful steps undertaken over a period of two years this new initiative was achieved through existing administrative structures and channels of communication, i.e., Chancellor's staff → Board of Deans (chaired by Provost) → Department Heads → Faculty. When appropriate, faculty were contacted directly through the Faculty Senate, limited numbers of faculty and students were invited to

participate in the work of the task forces and the advisory committees, larger numbers took part in the sessions conducted by Aubrey Forrest.

Since the measurement of general education was conducted centrally, it was very helpful to be able to bring in an outside consultant to further understanding of the process and to heighten interest in potential uses of data from the COMP exam. In the areas of testing in the major field and assessing opinion of students and graduates, department heads, faculty, and students became directly involved in determining their own objectives, collecting data, interpreting the findings, and using results to improve their programs. In the University-wide survey of student opinion Professors Van Liere and Lyons utilized interviews with students and with department heads as they developed questions for the sections of their instrument dealing with quality of programs/services in the major and of classroom experiences in the department. The Vice Chancellor for Student Affairs and his staff were directly involved in the design of the sections of the questionnaire that dealt with general university programs and services such as the library, the counseling center, campus film series, computer services, and University bookstore. These involvement strategies were undertaken very deliberately in order to give potential users of outcome information a vested interest in obtained results.

The Kellogg Project Director's own management style is characterized by a great deal of personal contact. Telephone or face-to-face communications almost always precede written communications. Memos contain confirming information that provides background for suggesting directions for future action. Following individual contacts, often group meetings are scheduled for the purpose of sharing experiences and obtaining consensus concerning the most expeditious ways of accomplishing the next steps. As often as possible, personal communications with deans and department heads begin with a sharing of some new information generated by one or more of the project activities; this is followed by the inevitable request for additional cooperation and assistance.

While the Kellogg Project at UTK had an identity and life of its own, it was inextricably associated with the THEC performance funding initiative, and drew much of its importance in the eyes of University administrators from that association. The Kellogg Project enabled UTK to view the Instructional Evaluation Schedule with some detachment, to approach it intellectually, to

scrutinize its feasibility, and to find ways of making it work for the institution, i.e., to complement on-going processes of program evaluation and provide information for use in making decisions about the allocation of internal resources.

Data Presentation Strategies

ACT provides ample opportunity for institutions to add their own items to the COMP exam and to have the responses to these items tabulated along with the information ACT itself collects. Prior to the May 1983 senior testing date at UTK, the General Education Advisory Committee assisted the Kellogg Project Director in developing a number of supplementary items that would produce information on patterns of course selection to fulfill general education requirements within each college. Other items were added to provide demographic data and information about participation in a variety of special activities such as internships, honors courses, interdisciplinary studies, and student professional organizations. It was hoped that analyses of the effects of special experiences and patterns of course work on COMP exam scores would yield information that could be used in making recommendations for improvements in curriculum and instruction. Comprehensive analyses of these relationships will take years to complete, but some preliminary findings were available by September 1983.

At approximately the same time, a report was completed by Van Liere and Lyons on the analysis of the Student Satisfaction Survey conducted in April (see Appendix 8). A summary report (see Appendix 9 for a sample) combining information from the following sources was compiled for each college:

a) ACT COMP exam scores and preliminary analyses of supplementary items;

b) the Student Satisfaction Survey;

c) testing in major fields;

d) surveys of graduates, employers, or enrolled students conducted by the college or by one or more of its units; and

e) student evaluations of courses initiated by individual instructors.

At the beginning of the Fall Quarter this report was made available to each dean, and the Kellogg Project Director and the Director of the Learning Research Center offered to attend a faculty meeting to explain the contents. Seven of nine deans availed themselves of the opportunity for such a presentation.

The summary reports and presentations to faculties had not been conceptualized as vehicles for dissemination at the beginning of the Kellogg Project. Nevertheless, they were extremely effective in attracting the attention of faculty to the importance of student outcome information and in establishing the Learning Research Center as a dependable source of credible information presented in comprehensible, usable terms.

Chancellor Jack Reese received a private briefing on the information that had been compiled for the college reports. He asked if Professors Van Liere and Lyons could conduct further analyses of their data to shed some light on factors related to student retention. Subsequently information was obtained concerning the identity of Spring 1983 survey respondents who had returned to UTK in Fall 1983 and those who had not. Regression analyses revealed that overall satisfaction with the University experience was the single most important determinant of student retention (see report in Appendix 10). Implications were drawn for increasing academic and social satisfaction in each of nine colleges. The results of this special analysis for the Chancellor were presented first in written form to the Chancellor's staff, then orally to the Provost's personal staff, and orally to the Board of Deans.

The monograph on performance funding may become the most effective vehicle for disseminating results of the Kellogg Project to the higher education community beyond the campus of the University of Tennessee, Knoxville. In the meantime, the Project Director has made presentations to several outside groups, including:

a) The Knoxville Medical Auxiliary on November 4, 1983;

b) The Southern Association of Colleges and Schools in New Orleans on December 13, 1983;

c) The South Knoxville Kiwanis Club on March 12, 1984;

d) The American Association for Higher Education in Chicago on March 16, 1984; and

e) The American Educational Research Association in New Orleans on April 24, 1984.

Project Continuation

The principal thrusts of the Kellogg Project -- measuring student opinion and achievement in general education and the major field, and using the resulting information in decision-making and program improvement -- will be continued for the foreseeable future under the leadership of personnel associated with the Learning Research Center. Continuing these activities serves the interests of the University in two very important ways:

a) providing enhanced ability to gauge program quality for purposes of strategic decision-making and improvement, and

b) bringing the University at least $3 million annually (or 5 percent of the E & G budget) in the form of a budget supplement from the State.

The additional direct costs (i.e., above and beyond the expenses associated on an on-going basis with program accreditation, peer review, ability testing of freshmen, and departmental evaluative activities other than those specified by the THEC) of providing the outcome information specified by THEC for an institution with the number of students and diversity of programs found at UTK is estimated at a little more than $100,000 per year.

The Kellogg Project Director and the Director of the LRC will continue to enlist the counsel and assistance of the advisory committees, the Technical Advisory Council, and the Instructional Evaluation Advisory Committee as needed in carrying out the data collection and related research programs and in communicating results to faculty. The members of the Technical Advisory Council will be particularly helpful in future efforts to put outcome information to use because most are associate deans charged with the responsibility of improving curriculum and instruction within their colleges. This responsibility gives the TAC members a vested interested in obtaining and using current outcome information.

Project Impact

Changes in Curriculum or Instruction

The first change in academic requirements brought about by the increased campus interest in student outcomes was the adoption by the Faculty Senate in January 1983 of a statement for the University catalog concerning mandatory participation in "one or more evaluative procedures" prior to graduation (see Appendix 7). This requirement was instituted to ensure that appropriate samples of students would take the ACT COMP exam in general education and comprehensive tests in the various academic disciplines.

The score reports prepared by ACT following the testing of freshmen and seniors in 1983 with the COMP exam (see Appendix 11) have generated substantial interest among the academic deans, and among the department heads and faculty who have seen the reports. (More needs to be done to ensure that all faculty will be aware of the findings.) The measure of value added -- score gain from freshman to senior years -- provided encouragement for curriculum planners: Mean score gain at UTK is well above the mean of score gains at peer

institutions. However, percentile rankings on the two subscales Functioning in Social Institutions and Solving Problems are not as high as the faculty would like to see them. While there is no sound basis, nor is there an immediate need, for making precipitous changes in general education distribution requirements on the basis of the COMP exam scores, there is considerable interest in (1) analyzing relationships between COMP scores and such factors as courses taken, time on task, and participation in internships, interdisciplinary courses, and other special experiences; and (2) reviewing future reports from ACT to see if the pattern of subscore strengths and weaknesses obtained in 1983 is maintained in subsequent years. A group of faculty with interest in analyzing large data sets has been organized to carry out the analytical studies.

Preliminary data analyses indicate that participation in student professional organizations is associated both with high scores and high score gain on the COMP exam. This finding suggests, obviously, that increased emphasis on student participation in professional organizations might enhance the educational experience of students on campus. The UTK Coordinating Committee on General Education, as well as the Board of Deans and others interested in program improvement, will continue to consider the COMP results and the unfolding picture of correlates of achievement as they contemplate broad changes in curricula and course work necessitated by increasing selectivity in admissions standards and a planned conversion from an academic calendar based on quarters to a semester system.

Study of the COMP exam itself has proven to be a faculty development activity that holds much promise. Dr. Aubrey Forrest of ACT has been on campus twice under the auspices of the NCHEMS/Kellogg Project, and his presentations have been widely acclaimed by participants. The design of the COMP exam is quite interesting: Each item has been constructed to assess skills in a process area (communicating, solving problems, clarifying values) as well as a content area (social science, science/technology, the arts). Moreover, the test items require the student to apply higher order intellectual skills such as analysis, synthesis, and evaluation, not just recognition and recall. Thus, careful study of the exam and the rationale on which it is based suggests to faculty ways of teaching and testing students that foster development of the more complex skills. Additional faculty development programs of this kind are contemplated.

While changes in general education will be made slowly due to the institution-wide implications of many such endeavors, changes in curricula, instruction, and supporting services associated with individual programs can be made more quickly and easily. The Van Liere-Lyons survey of enrolled students administered in Spring 1983 and Winter 1984 (see Appendix 8), and the pilot projects implemented with Kellogg funds (see Table 1, page 14) already have resulted in more substantive changes than can be described fully in a brief presentation, and more changes are taking place with each passing week.

Administration of the "Student Satisfaction Survey" by Van Liere and Lyons in Spring 1983 revealed some student assessments of the quality of programs and services that proved disquieting to administrators and faculty in several units. Students in the College of Communications provided ratings of "availability of advisor" and "availability of required courses in the major" that were below University means for those items. The Communications dean was sufficiently concerned about these findings to take immediate steps to improve advising and make adjustments to give more students access to required courses. A full-time advisor for freshmen and sophomores was added to the dean's staff, and the average number of advisees assigned to each faculty member was reduced.

Student Satisfaction Survey results in the colleges of Business and Engineering, and the Department of Political Science prompted faculty in those units to initiate their own follow-up student surveys. The very detailed Engineering survey was administered by mail in February 1984, so results have not yet been compiled. In the business school a faculty member with experience in using a TELLUS machine that permits responses to ten items to be entered electronically and provides immediate tabulation of results, administered questions to over 400 students during preregistration. That endeavor furnished evidence of some dissatisfaction with student advising, and the appropriate associate dean undertook a thorough review of advising procedures and practices in the College. Advisors and all faculty have been sensitized to the needs for increased interaction with advisors and faculty that were indicated by students' responses to both the initial survey and the college follow-up.

The department head and faculty in the Department of Political Science were concerned because the Spring 1983 administration of the "Student Satisfaction Survey" indicated that students were somewhat dissatisfied with the

quality of instruction provided by graduate teaching assistants. The departmental committee on undergraduate instruction designed a follow-up study that involved administering to all undergraduate students taking political science classes in Fall 1983 the portion of the "Student Satisfaction Survey" dealing with the classroom experience. Following analysis of 1100 student responses the department head had, for the first time, comparative data on the perceived teaching effectiveness of every faculty member and every graduate teaching assistant (GTA). He shared the comparative data individually with each faculty member, and he believes this process will encourage faculty to take specific steps to improve their teaching. Indeed GTAs as a group did receive lower effectiveness ratings than faculty. Ways of responding to this finding are being explored -- larger lecture sections taught by outstanding faculty, televised lectures, combinations of lecture by faculty with discussion sections staffed by GTAs. Specific changes in content and methods of instruction are being planned for the introductory course in political science.

The pilot project -- a survey -- carried out in the Department of Textiles, Merchandising, and Design pointed to a need, once again, for improvement in student advising. In response a new curriculum planning sheet for majors was designed.

In several units the results derived from pilot projects confirmed present practice, e.g., high scores on the Graduate Record Advanced Tests by seniors in the departments of psychology, history, botany, and microbiology encouraged those faculties to continue current patterns of course work and classroom instruction. But in the departments of Geography and Food Technology and Science, the faculty decision to design their own comprehensive exam for seniors had profound effects. In order to determine the content of their exams the faculties had to consider in a more intensive way than heretofore, such curriculum matters as the relative emphases given to specialty areas of the discipline, the way course sequences fit together and build on each other, and the competencies students should possess upon completion of the curriculum for program majors.

The exam developed over the better part of a year by the faculty of the Department of Geography has four sections: Physical Geography, Economic Geography, Cultural Geography, and Technique. Seniors who took the exam when it was administered for the first time in February 1984 attained high scores

on the Cultural Geography section; their lowest scores were in economic geography. These specific findings and the global picture of scores have caused the faculty to undertake several curriculum changes: A course in economic geography will be added, cultural geography will be refocused, and students will be encouraged, perhaps required, to take a stronger common core of courses. In summarizing his perception of the effects on the department of designing the exam and using the findings in program evaluation, Sidney R. Jumper, head of the Department of Geography, wrote:

> The greatest benefit of the project has been that faculty members have been forced to consider the curriculum from the standpoint of measurement of specific outcomes -- or the quality of the student product -- rather than just in terms of general objectives that often reflect compromises of divergent views. In my view the benefits are vastly in excess of the cost of the project (in geography) in time, faculty resources, and money.

As in Geography, all faculty in the Department of Food Technology and Science (a unit in the College of Agriculture) were involved in developing their comprehensive exam for seniors. While Geography faculty chose not to involve in the design phase UTK faculty with expertise in measurement, the Food Tech faculty did schedule several sessions with a Kellogg Project consultant identified for this purpose, Professor Schuyler Huck from the Department of Educational Psychology and Counseling. Dr. Huck provided general guidance in developing multiple choice test items, and assisted in determining instrument reliability. In addition to the opportunity for internal review of instruments by a specialist in measurement, both the departments were encouraged to retain two external consultants to review their tests. The two faculties identified respected scholars in the discipline and asked those individuals to review drafts of their exams and even to give the tests to their own students for purposes of obtaining comparative data.

The test designed by faculty in Food Technology and Science is comprised of six sections: Microbiology, Food Chemistry, General, Meats, Dairy Products, and Crop Products. It was first administered to seniors in June 1983, five months after the faculty began work on it. In one respect the first administration of the exam was an effort to collect base-line information for evaluation of the effects of a new course distribution requirement. Previously students had had the option to select whatever combinations of courses they wanted from offerings in the three areas: Meats, Dairy Products, and

Crop Products. In the summer of 1983 a curriculum change took effect that required each departmental major at the undergraduate level to take at least one course in each of the three areas. Subsequent administrations of the exam will provide evidence of the effectiveness of this requirement in broadening the knowledge of majors concerning the field of food technology.

Analysis of students' test scores also brought about some immediate changes in the Food Tech Department. Faculty were not satisfied with the scores achieved on the Microbiology and Food Chemistry sections of the test. Students were not able to apply their knowledge to solve problems to the extent faculty had hoped they would be able to do. Following a series of meetings, the faculty teaching microbiology and food chemistry courses agreed to place much more emphasis on applications in their teaching and in their classroom tests.

The Food Tech faculty already has begun to consider ways of improving their exam for seniors. They want to add a performance measure that would take students into the laboratory to solve certain problems. Students' lab techniques would be judged as well as their approach to a problem and their resolution of it.

In summarizing his perception of the importance of the test design project, the head of the Department of Food Technology and Science, J. T. Miles, wrote:

> We plan to share our progress with the Education Committee of our international professional organization and try to develop (the exam) further.
>
> Faculty believe the time and resources necessary for developing the exam were worthwhile investments. Among other things, this experience has increased our competence as developers of classroom tests.

The use of nationally standardized exams to test student achievement for purposes of program evaluation can be valuable. At UTK the dean of the College of Business asked seniors to take the Business Assessment Test offered by Educational Testing Service as part of its Undergraduate Assessment Program. Students' scores gave evidence of particular strength in economics and weakness in business law. The college faculty had other indications of these anomalies in the curriculum and acted to reduce the three-course requirement in economics to two courses so that a requirement in business law could be added. Notwithstanding this kind of example, the

experience on this campus to date indicates that faculty have a greater intellectual stake in the outcomes of testing, and are more likely to undertake improvement initiatives based on those outcomes, if they have invested the time to become involved in designing their own comprehensive exam.

On technical grounds one can argue against the use of locally developed tests; there are no norms against which to judge local performance, reliabilities may be questionable, content and predictive validity are difficult to demonstrate. But when a test is being used to assess and improve program quality, students' scores are aggregated and faculty consider the implications of scores for changing the program rather than for making judgments about the relative competence of individual students. Thus the importance of technical flaws in the instrument is minimized, and the potentiality for effecting meaningful program improvement is great.

Changes in Student Services

Most of the substantive changes in student services made at UTK as a result of the increased emphasis on using student outcome information in program evaluation have taken place in academic services at the college or departmental level. Analyses of the data from the Student Satisfaction Survey indicated the great importance to students of good advising and increased interaction with faculty. Student participation in professional organizations was found to be a significant correlate of achievement in general education as measured by the COMP exam. These findings were put together in several colleges to provide impetus for improving advising and increasing interaction between students and faculty both in the instructional context and in strengthened student professional organizations. Descriptions of some of these actions in the several colleges were given in the preceding section.

The University requirement that students participate in "one or more evaluative procedures" prior to graduation ensures that some students will participate in the assessment of achievement in general education via the COMP exam or achievement in the major field via nationally standardized or locally developed tests. Those seniors who are not asked to take an exam in their senior year (testing for all seniors is too expensive, and unnecessary) are required to complete the Student Satisfaction Survey. An area of the Career Planning and Placement Center has been identified as the site for seniors to complete the Survey form. Some seniors who would not have availed

themselves of the services of the placement center have been brought to the center by the evaluation requirement and have stayed to file an employment resume.

Responses to the Student Satisfaction Survey items concerning registration and availability of courses indicated some dissatisfaction with the registration process. The Vice Chancellor for Student Affairs, Howard Aldmon, used this finding to support a decision to establish an earlier cut-off date for admission to the University so that student demand for classes could be assessed in a more timely fashion and extra sections scheduled to accommodate demand. In a further attempt to improve the quality of student advising, Vice Chancellor Aldmon asked that each dean provide a representative to meet with students encountering special problems during the drop/add process.

Student retention is a matter of increasing concern to campus administrators across the country. Analysis of Student Satisfaction Survey responses for students returning to the University and those not returning two quarters later (see Appendix 10) has provided preliminary evidence that satisfaction with the University is an important factor in students' decisions to pursue their studies at UTK. Higher grade point averages and fewer hours of employment (less than 30 hours per week) also are linked with persistence on this campus. Developers of the Student Satisfaction Survey, Kent Van Liere and William Lyons, found that patterns of student satisfaction varied by college. As a consequence, they have provided a profile for each of the nine colleges enrolling undergraduates of factors characterizing student academic and social satisfaction in that unit. For some colleges social satisfaction -- interaction with peers (perhaps in student professional organizations) or membership in a social fraternity -- contribute most to overall satisfaction with the University. For the professional schools -- nursing, business, architecture, engineering -- interaction with faculty is a potent factor in determining satisfaction. These profiles are being used by college faculties to make adjustments they hope will help to increase student retention.

Changes in Institutional Planning and Evaluation Activities

In June 1982 the NCHEMS/Kellogg Project Technical Advisory Council recommended that steps be taken to incorporate student outcome information in the on-going academic program review process to ensure that every academic

unit would have an impetus to consider such information in program evaluation at least once every five years. The Council further recommended that information from program reviews be considered in budgeting and strategic planning.

The University of Tennessee, Knoxville has a well-established (begun in 1974), carefully crafted program review process that is conscientiously implemented by the Provost and his staff. Central administrators, including the Chancellor himself, review the self-study, and reports prepared by internal and external reviewers following a 2½-day intensive site visit. Objectives and aspirations of the department or program under review and the recommendations of the reviewers are considered in University-wide as well as unit planning and in internal resource allocations.

Prior to 1983 the UTK program review guidelines, like those at many other institutions, focused primarily on program input factors as evaluative criteria. Qualifications of faculty, quality of students as measured by aptitude tests or grade-point averages, the funding base, and adequacy of facilities and the library collection, were included by program faculty in the self-study and examined by reviewers. In July 1983 the UTK Kellogg Project Director was given the opportunity to submit new material for the program review guidelines that would provide a focus on student outcomes such as placement of graduates, opinion concerning quality of the program and supporting services, and achievement in general education and the major field. The revised guidelines, with new material indicated, appear in Appendix 2; they were put into effect in September 1983.

To emphasize the importance of using student outcome information in program evaluation, in January 1984 Provost George Wheeler asked every academic unit to develop a plan for assessing student achievement in the major field at least once in the next five years.

In an additional development, the Kellogg Project Director began serving in Spring 1983 as a member of the central administrative team that conducts the program reviews and related follow-up activities. This gives her an opportunity to call attention to the evidence provided by outcome information throughout the review process.

The UTK Planning and Budgeting Coordinating Committee, co-chaired by Provost Wheeler and Executive Vice-Chancellor for Business, Planning, and Finance Homer Fisher, is less than two years old; Chancellor Jack Reese appointed the group in September 1982. This committee has reviewed the Van

Liere-Lyons retention study (Appendix 10) in preparation for planning strategies to increase student persistence at UTK. The information on freshman and senior COMP exam scores (Appendix 11), accompanied by preliminary analyses of correlates of achievement in general education -- including reasons given by freshmen for choosing to attend UTK -- has been considered by the committee as it seeks ways to clarify the mission statement of the University and communicate it to the clientele the institution hopes to serve. During Spring Quarter 1984 the committee will work with Professors Van Liere and Lyons and the Learning Research Center staff to develop and administer a survey of alumni to obtain their opinions concerning program quality. The committee has begun to use the academic program review documents, with their new emphasis on student outcome information, in determining which programs to strengthen through allocation of additional resources, and which to combine with others or terminate.

In the most tangible and immediately effective illustrations of outcomes utilization to date, Executive Vice Chancellor Fisher inserted a reference to the use of student outcome information as evidence of program quality in the 1984 instructions for use by program heads in preparing their annual budget requests (see Appendix 12). In addition, the Planning and Budgeting Coordinating Committee used student outcomes as one of the criteria in selecting the campus proposals to be entered in Tennessee Governor Lamar Alexander's 1984 state-wide Centers of Excellence competition. Previously the criteria for assessing quality in procedures such as these had included only input and process variables.

Conclusion

The use of student outcome information in program assessment and improvement has been woven into the fabric of institutional planning and decision-making during the two years of the NCHEMS/Kellogg Project at the University of Tennessee, Knoxville. As a result of the adoption of appropriate new policies and procedures, program heads in all colleges are using outcome data to inform the process of improving their programs, while central administrators are considering these data as they make strategic decisions about program mix and allocation of internal resources.

Many institutions employ systematic methods to collect information on student achievement and opinion. The UTK program is unique in its scope: It attempts to provide mutually supportive <u>combinations</u> of outcome information

and to explicitly encourage use of such information in improving programs in each of the 111 disciplines represented at this research university of 26,500 students.

Until recently the strong tradition of the academy to manage its own affairs deterred public probing about the efficiency and effectiveness of programs and services in higher education. Now the loss of confidence in the American educational system, coupled with the need to make better informed decisions about the allocation of scarce financial resources among a variety of important services, has stripped away any immunity from public scrutiny that colleges and universities may have enjoyed in the past. The ability to conduct comprehensive program evaluations -- comprehensive in that programs are monitored from the setting of objectives, through the allocation and utilization of resources in implementation, to the measurement of outcomes related to the objectives -- is becoming an institutional imperative in higher education.

State legislatures from California to Missouri to Florida are expressing interest in alternatives to enrollment-based funding of higher education that reward institutions for providing programs of exceptional quality. The Southern Association of Colleges and Schools is considering the use of outcomes assessment in its accreditation standards. Tennessee has become the first state to utilize performance criteria in allocating a portion of state funds for higher education.

The leadership of Chancellor Jack Reese, Executive Vice Chancellor Homer Fisher, and Provost George Wheeler and his staff; the information needs of the Planning and Budgeting Committee; a healthy attitude toward innovation among department heads and faculty; the impetus of the NCHEMS/Kellogg Project; and the financial incentive provided by the State's performance funding approach, have proven to be the key factors in the successful effort to promote the use of student outcome information in program evaluation and improvement and institutional planning and decision-making at the University of Tennessee, Knoxville.

The task of convincing administrators and faculty of the value of systematically collecting evidence of program quality and putting it to use requires strong leadership, and time. The importance of the NCHEMS/Kellogg Project in providing access to these resources at UTK must be emphasized.

Powerful objections to the collection and use of outcome information can be raised: The process costs too much, faculty have difficulty agreeing on program objectives, appropriate instruments are not available, and instruments that are available lack acceptable reliability. Representative study and planning groups must be established to consider these objections, to review measurement methodologies, and to assess the potential benefits of employing these strategies. The methodologies must be adapted to fit institutional and program missions. Individuals participating in the study groups must communicate their findings to the students, faculty, and administrators they represent. Ultimately all must come to the realization that if faculty believe an instrument can give them information about strenghs and weaknesses of their program, some of the technical imperfections in the instrument may be overlooked since data will be aggregated for assessment of the program rather than the relative competencies of individual students. Conducting pilot tests of alternative methodologies will provide an experience base upon which widespread application can be built.

At UTK the NCHEMS/Kellogg grant provided the leadership, the time, and some financial assistance for (1) carrying out the studies essential to establishing the institution's ownership of its student outcomes assessment program, (2) establishing the communication networks necessary to inform faculty and students of the benefits of such a program, and (3) pilot testing alternative methodologies for collecting and using outcome information. Thus the institution has come to terms with the requirements of the State's instructional evaluation program, has adapted that program to serve its own needs, and now is in position to take full advantage of Tennessee's pioneering effort to allocate state funds on the basis of performance criteria.

APPENDIX 1

INSTRUCTIONAL EVALUATION VARIABLES

November 21, 1983

Tennessee Higher Education Commission

I

INSTRUCTIONAL EVALUATION VARIABLE

PROGRAM ACCREDITATION

Purpose

This variable is designed so as to reward institutions that design and offer academic programs, for which accreditation services are provided, that meet or exceed the standard of responsible accreditation agencies.

Performance Standard and Point Allocation

An institution may be awarded up to 25 points on this variable. The number of points awarded to the institution will be a percentage of this maximum amount calculated as the percentage of eligible programs accredited.

Definitions and Procedures

(1) A "program" is defined as a sequence of educational experiences leading to a degree major as listed in the THEC program inventory.

(2) A program is defined as "eligible" if there is a COPA member agency or organization which accredits programs for that field and degree level (unless exempted under (6) below). Additional accrediting agencies may be proposed by governing boards. Upon THEC staff approval, all programs accreditable by such agencies will be included as eligible statewide.

(3) Program fields covered by an umbrella accreditation will not be counted as "one" unit, but each degree major as "one." For example, if an institution offers five bachelor's degree majors in business, and the business school or college is AACSB accredited at the undergraduate level, these five programs will be counted as five programs for the purposes of this variable.

(4) Programs automatically excluded from the list of eligible programs are programs (a) that have been approved by the THEC for less than five years, unless the program is accredited by a COPA agency, (b) that are being terminated or phased out--based on appropriate official action, and (c) that have been identified as "inactive" by the appropriate board and the THEC.

(5) A program eligible for accreditation by more than one agency will be counted only once on the eligible list.

(6) Where program accreditation efforts are shown to be unjustified on a statewide basis in relation to an accumulation of factors such as economic feasibility, critical mass of enrollees, low benefits to students, more important qualitative priorities, etc., institutions may request respective governing board to seek program exception. Any exception approved by the THEC staff must apply to all similar program areas in the state.

7. Proposals from governing boards for statewide changes in eligibility of programs or appropriateness of accrediting agencies as outlined in (2) and (6) above must be submitted to the THEC staff before January 1 each year to facilitate any necessary revision of the eligible program or acceptable accrediting agency lists for the next budget cycle. The official list of eligible programs or appropriate agencies shall be maintained by the THEC staff based on inventory records and approved exceptions as noted above.

II

INSTRUCTIONAL EVALUATION VARIABLE

PROGRAM FIELD EVALUATION

Purpose

This variable consists of two standards. An institution may earn a maximum of 10 points under the first standard (IIA) and a maximum of 20 additional points under the second standard (IIB). The first standard is intended to encourage an institution to evaluate the quality of each of its academic programs at least once within a five year period. The second standard is designed to reward those institutions which can demonstrate on the basis of test results that the quality of their programs is increasing or has attained an above average level of quality. Together, these standards provide a means of evaluating the quality of the specialized academic offerings of institutions.

IIA PROGRAM FIELD EVALUATION

IIA

EXTERNALLY VALIDATED TESTS, LOCALLY DEVELOPED TEST, OR EXTERNAL PEER REVIEW

Performance Standard and Point Allocation

Under Standard IIA, an institution may be awarded up to 10 points. The number of points awarded to the institutions will be a percentage of this maximum amount calculated as the percentage of program fields which have met the requirements outlined below within the past five academic years.*

The institution has assessed the performance of a representative sampling of graduates of the program field by means of an externally validated instrument approved by the THEC staff. This instrument shall be applied to and appropriate for the program level which has produced the largest number of graduates in recent years at that institution.

OR

The institution has assessed the performance of a representative sampling of program field graduates by process of the administration of a locally developed program test. This instrument shall be applied to and appropriate for the program level which has produced the largest number of graduates in recent years at that institution.

OR

The institution has evaluated the quality of individual programs via external peer review (this alternative is not available for accreditable programs). This evaluation shall cover all levels of the program field offered by the institution.

*For the first four years' administration of this variable, the 10 points maximum will be awarded to an institution according to the following schedule.

A. In the first year--at least 20% of the program fields have met one of the listed requirements within the first year.

B. In the second year--at least 40% of the program fields have met one of the listed requirements within the first or second year.

C. In the third year--at least 60% of the program fields have met one of the listed requirements within the first, second, or third year.

D. In the fourth year--at least 80% of the program fields have met one of the listed requirements within the first, second, third, or fourth year.

IIB PROGRAM FIELD EVALUATION

IMPROVED PROGRAMS OR PROGRAMS OF EXCEPTIONAL QUALITY

Performance Standard and Point Allocation

To be eligible for points under this standard, an institution must demonstrate that it has assessed the performance of a representative sample of graduates of its program fields via externally validated tests or locally developed tests. Up to 20 points may be awarded under Standard IIB. The number of points awarded to the institution will be a percentage of this maximum calculated on the basis of the percentage of programs that have met the requirements outlined below within the past five academic years. (See the table below for further details.)

The institution can demonstrate on the basis of an externally validated test appropriate to that field that the performance of program graduates exceeds the norm.

OR

The institution can demonstrate on the basis of an externally validated test appropriate to that field that the performance level of program graduates exceeded the level of performance by program graduates on the most recent administration of that test.

OR

The institution has assessed the performance of a representative sampling of program graduates through administration of a locally developed test and can demonstrate program graduate scores which exceed the scores from the most recent previous administration of that test.**

AWARDS UNDER STANDARD IIB

Percentage of Program Fields Meeting Requirements	Points Awarded
75% - 100%	20
72.5% - 74.9%	19
70.0% - 72.4%	18
67.5% - 69.9%	17
65.0% - 67.4%	16
62.5% - 64.9%	15
60.0% - 62.4%	14
57.5% - 59.9%	13
55.0% - 57.4%	12
52.5% - 54.9%	11
50% - 52.4%	10
47.5% - 49.9%	9
45.0% - 47.4%	8
42.5% - 44.9%	7
40.0% - 42.4%	6
37.5% - 39.9%	5
35.0% - 37.4%	4
32.5% - 34.9%	3
30.0% - 32.4%	1
27.5% - 29.9%	1
0 - 27.5%	0

**In order to compensate institutions for the initial costs of developing local tests, institutions will be rewarded for the first administration of such tests during the first five years (to July 1, 1988). A locally developed test administration for the first time in this period will be scored as if the institution's test scores had exceeded a previous score on the same test.

Definitions and Procedures

(1) In general, a "program field" is defined as all levels of programming bearing the same name as an academic major. A group of closely related programs with dissimilar names may also be considered a single program field. General technology and general transfer programs leading to an associate degree are exempt from this variable as are pre-professional programs which do not result in a degree under that name. All individualized programs offered by an institution will count as one program field for purposes of this variable. Programs automatically excluded from consideration under this variable are programs (a) that have been approved by the THEC for less than five years, (b) that are being terminated or phased out--based on appropriate official action, (c) that have been identified as "inactive" by the appropriate board and the THEC, and (d) that are offered at a level below the baccalaureate at baccalaureate degree granting institutions (nursing programs excepted). Program fields which are accredited under Variable I and which are performance oriented shall not be included in this variable. A list of program fields for each institution shall be maintained by the THEC staff.

(2) An institution choosing to conduct external peer reviews must submit a plan for external review through its governing board staff to the THEC staff for approval prior to the review. The plan for external peer review must include names and vita of at least two peers proposed to conduct the review, a schedule of planned activities to be included in the review, include efforts to measure the improvement of educational outcomes to the maximum extent possible, and provide for a written critical report summarizing the findings which will be forwarded to the THEC as part of the budget request process.

(3) A "locally developed program test" must be constructed in cooperation with at least one similar institution with a similar degree major program or in consultation with a team of at least two external consultants, at least one of which must be an expert in the content of that program field.

(4) An institution choosing to use locally developed program tests must submit a plan for test construction through its governing boads staff for THEC staff approval prior to construction. The plan for test construction must include a schedule of activities, sampling procedure, credentials of cooperating institution staff or credentials of external consultants, and a proposed schedule for submission for THEC staff approval prior to use. Results and analysis of locally developed program tests must be submitted as part of the budget request process.

(5) The master list of appropriate externally validated tests available for programs will be determined and maintained by the THEC staff.

(6) In choosing among externally validated tests, locally developed tests or peer reviews, an institution should consult its governing board staff.

(7) In reporting test results under Standard IIB utilizing program field tests for which more than one datum descriptive of average performance for both the sample of graduates and the norm group is available, a mean score will be accepted in preference to a percentile datum and a percentile datum will be accepted in preference to a pass/fail rate. If more than one norm group is available for comparison, national norms are preferred to regional norms which are preferred to state norms.

(8) The awarding of points under both IIA and IIB is on the basis of "official test" scores. Once a test is given and points awarded under IIA, the score reported becomes the "official test" score for five years or until an institution notifies the THEC staff that it intends to "retest" that field within the five-year period. Intent to retest must be declared in advance of such testing and the results must be reported to the THEC. The score of the retest becomes the "official test" score and is utilized for all point calculations under variable II.

(9) Reference to the "most recent previous administration" of a test refers to the most recent administration of an "official test" (defined above). An exception to this is made for the first test of a program field qualifying as an "official test".

III

INSTRUCTIONAL EVALUATION VARIABLE

INSTITUTION-WIDE EDUCATION OUTCOMES

Purpose

This variable consists of two alternative standards. The particular standard to be applied is dependent on the class of institution. This variable provides a means of evaluating the general (non-program-specific) quality of the educational program at each institution.

IIIA GENERAL EDUCATION OUTCOMES

This standard shall apply to all four year institutions and may apply to community colleges as described below.

Performance Standards and Point Allocation

(1) The institution will be awarded 5 points if, within the past five academic years, the institution has assessed the performance of a representative sample of graduates for its major academic degree utilizing the ACT-COMP Objective or Composite measure.

(2) The institution will be awarded an additional 20 points if through annual assessment utilizing the ACT-COMP measure, the institution can demonstrate that the performance of its graduates regarding value added is above average when compared with the performance of graduates of comparable institutions. (See definition #6 for procedure.)

OR

The institution will be awarded an additional 20 points if through annual assessment utilizing the ACT-COMP measure, the institution can demonstrate an improvement in value-added from the most recent institutional measure of value-added. (see definition #6 for procedure.)

IIIB PLACEMENT OF GRADUATES

This standard shall apply to all technical institutes. Community colleges must first make a determination as to which of their programs can be assessed by a measure of general education outcomes. For these programs, the standards of IIIA shall apply. For the remaining programs at these institutions, IIIB shall apply. The total number of points awarded shall be prorated between the two standards according to this division.

Performance Standards and Point Allocation

(1) For programs being evaluated within this standard, the institution will be awarded 5 points if the institution each year has conducted a follow-up survey of all graduates to ascertain their employment status in the cluster of occupations for which they were trained.

(2) The institution will be awarded an additional 20 points if, through analysis of the surveys conducted in IIIB(1), the employment rate for graduates in the cluster of occupations for which they were trained exceeds 70 percent.

OR

The institution will be awarded an additional 20 points if the employment rate of graduates in fields for which they were trained exceeds the employment rate in the most recent similar survey of employment rate of graduates in fields for which they are trained.

Definitions and Procedures

(1) Follow-up surveys must be designed to establish the employment status of all program completers during a period not earlier than 30 days following program completion and not later than 90 days following program completion. The single exception to this shall be the survey of students completing in the spring quarter in time for a May or June convocation. These students must be surveyed not earlier than September 1 and not later than October 31 following their program completion.

(2) All completers surveyed within a fiscal year will form the basis of calculation of employment rate. The placement percentage is calculated as the ratio of the total number of students placed in fields for which they were trained to the total number of program completers less those in military service or pursuing further education.

(3) A list of "clusters of occupations" appropriate to each program subject to evaluation under standard IIIB shall be maintained by the THEC staff.

(4) A representative sample is a sample of entering students or graduates chosen so that the sample statistically represents the population of entering students or graduates for a given year.

(5) Value added shall be measured by a comparison of the general education mean score as measured by the ACT or COMP for entering freshmen to the mean COMP score for a graduating class. Any one of the following procedures may be used:

(a) Longitudinal Study using the COMP Composite Examination
(b) Longitudinal Study using the COMP Objective Test
(c) Cross-sectional Study using the COMP Composite Examination
(d) Cross-sectional Study using the COMP Objective Test
(e) Exit-level assessment only, estimating the entry level COMP score based on a concordance table with the ACT composite score.

(6) Above average performance in value-added must be demonstrated by an institution having a value-added mean score which exceeds the value-added mean score for a similar set of institutions measuring value-added with a comparable procudure. A similar set of institutions shall number no less than six and shall include, to the extent possible, institutions with

similar purposes, similar enrollments, similar support systems, and similar testing or surveying techniques. A similar set of institutions cannot be exclusively or predominantly composed of in-state public institutions. The THEC staff shall determine which set of institutions are to be considered similar following consultation with institutional and governing board staffs and with personnel from the American College Testing Program.

(7) The sampling procedure for activities in this variable must be submitted prior to use for THEC staff review.

(8) Institutions must submit a written report including scores, survey results and analyses as part of the budget request process.

(9) Calculations of value added shall be rounded to the nearest whole number and point allocations made on that basis.

IV

INSTRUCTIONAL EVALUATION VARIABLE

INSTRUCTIONAL IMPROVEMENT BASED ON REFERENT GROUP SURVEY

Purpose

This variable consists of two standards. A maximum of 5 points can be earned under each standard for a total of 10 points under this variable. This variable is designed to encourage institutions to seek evaluation of its overall academic program quality by consumers of the educational product.

IVA SINGLE SURVEY

Performance Standards and Point Allocation

The institution will be awarded 5 points upon demonstration that the institution has surveyed, with an evaluative instrument, a representative sample of at least one of three referent groups (enrolled students, formerly enrolled students, or community members/employers) with application to the majority of its program fields or to the entire institution. To be awarded points for this standard, the institution must submit a brief presentation of the analysis of the survey results and provide a description of specific substantial, instructional improvement actions taken as a result of the survey and analysis when such improvement actions are indicated.

IVB TWO SURVEYS

The institution will be awarded an additional 5 points if the institution has surveyed, with an evaluative instrument, two or more of the referent groups with application to the majority of its program fields or to the entire institution. To be awarded points for this standard, the institution must submit a brief presentation of the evaluative survey results and provide a description of specific, substantial, instructional improvement actions taken as a result of the surveys and analyses when such improvement actions are indicated.

OR

The institution will be awarded an additional 5 points if the institution can demonstrate that an evaluative survey has been administered more than once to the same referent group and can demonstrate for this referent group's most recent evaluation, the institution has received improved scores from the previous survey taken as a whole.

Definitions and Procedures

(1) An "evaluative survey" is defined as one yielding quantifiable indices reflecting satisfaction with or evaluation of instructional programs. The survey instrument may be a nationally or locally constructed instrument. A list of acceptable instruments for this variable will be maintained by the THEC staff. Prior approval by the THEC staff for the use of instruments not on this list is required.

(2) A representative sample means a sample chosen so that it statistically represents the population.

(3) Instructional improvement actions must relate directly to improvement of classroom instruction or indirectly in terms of academic support activities such as library services, academic counseling services, etc. (items such as food service, parking, or other student conveniences, etc., are excluded).

(4) As part of the budget request, an institution must submit a copy of the survey instrument, date(s) of administration, description of sampling procedure, and analysis sufficient for any points claimed.

(5) To qualify as a survey, it is not necessary that a single instrument be used. Multiple instruments employed within the same fiscal year constitute a survey when, taken as a group, they are applied to a majority of the institutional program fields or to the entire institution.

(6) To be awarded points under this variable, the survey or surveys must be conducted during the fiscal year immediately preceding the fall appropriations request cycle.

V

INSTRUCTIONAL EVALUATION VARIABLE

PLANNING FOR INSTRUCTIONAL PROGRAM IMPROVEMENT

Purpose

This variable consists of two standards. A maximum of 5 points can be awarded under each standard for a total of 10 points under this variable. This variable is designed to encourage institutional self-evaluation of its academic program quality.

VA PLAN DEVELOPMENT

Performance Standards and Point Allocation

The institution will be awarded 5 points under this standard, provided it submits an acceptable annual plan for instructional improvement in the forthcoming year to the THEC staff at the time of submission of appropriations requests for that forthcoming year. An acceptable plan must exhibit these features:

a. Specific goals and benchmarks or measurable objectives can be reached in the planning period are set forth.

b. Activities scheduled as part of the plan must provide for an evaluation component.

c. All activities which form the basis of claims for points under the other four institutional evaluation variables should be included in the plan, but the plan should address additional means of instructional improvement.

d. Faculty must be involved in the development, execution, and evaluation of the plan.

e. The plan must be focused upon improvement in instruction, either directly in terms of improved classroom performance as illustrated by outcomes measures or indirectly in terms of improvement to academic support activities such as library services, academic counseling services, etc.

f. The plan should be consistent with longer term plans of the institution, its governing board, and the THEC.

VB PLAN EVALUATION

Performance Standards and Point Allocation

The institution will be awarded an additional 5 points under this standard, provided it submits at the time of submission of appropriations requests an evaluation of the plan for instructional improvement covering the previous year. This evaluation must report the degree to which the plan was executed and the results obtained in terms of reaching goals and benchmarks or measurable objectives and completion of activities. Only those institutions which can demonstrate that at least half of the objectives and benchmarks have been reached or activities favorably evaluated will be awarded points under this standard.

APPENDIX 2

Academic Program Review Guidelines
for the
Self-Study Document

SELF-STUDY DOCUMENT

A self-study document is prepared by the academic unit prior to the review. Copies are distributed to members of the review team at least two weeks prior to the on-campus evaluation. This outline for the self-study document is designed to provide guidelines and assist the unit, not to prescribe a rigid format for its content.

Function

Specify clearly the primary function of the academic unit, including
* immediate and long-range goals and/or objectives for instruction, research, and public service, within the broader context of the college and the total university.

Program

Provide a brief statement describing the academic program, including: role, scope, breadth and depth. Also, describe the program and its components in terms of emphasis on preparation for teaching, research and/or professional practice. Assess the demand for the program in the community, state, and/or region.

Faculty

Provide a brief vita for each faculty member. Describe the faculty in terms of strengths and weaknesses, particularly as related to the role and scope of the academic program. Include information in the summary concerning the past three years for the following:

1. Special teaching, research or professional practice awards to the faculty.
2. Publications in referred journals.
3. Books published.
4. Monographs or manuals published.
5. Journals edited or number of faculty members serving on editorial boards.
6. Grants and contracts awarded from agencies external to the University.
7. Presentations at national meetings.
8. Number of faculty approved to teach 6000 (doctoral) level courses.

*1983-84 Additions Underlined

9. Number of faculty approved to direct doctoral dissertations.
10. Any information about faculty quality collected from students or alumni.
11. International experience.
12. Faculty development activities.

Students

Provide student information for the past five years. Include any information considered appropriate, but at least the following if available:

1. Number of applicants.
2. Number of students admitted.
3. Number of women, minorities and international students enrolled.
4. Number of students graduated.
5. Number of students who dropped out.
6. An assessment of the quality of students as indicated by test scores, grade-point averages, or other data.
7. Financial assistance available, including number of students awarded assistantships and fellowships.
8. Description of student recruitment procedures.

Library

Provide an assessment of the adequacy of library holdings for the program.

Physical Facilities

Provide a brief summary of the physical facilities and describe their effect on the academic program. Include a statement concerning any pertinent equipment needs.

Program

1. Admission procedures--Describe how students are selected for the program.
*2. Statement of desired outcomes of instruction for students.
3. Innovative, unique, or outstanding features of the program.
4. Breadth and depth of program--Include in this statement any special degree requirements, requirements for courses outside the academic unit, the selection of a student's committee, the nature of the comprehensive examination and the dissertation.

5. Research in the program--Include any information concerning how students are involved in the research, whether research assistantships are available, how the research is funded, the emphasis upon research as a component of the program.
6. Public Service--Include specifically the interrelationships between public service activities and research and other aspects of the program.
7. Teaching--Include information concerning any innovations as well as assessments by students, faculty or alumni.

* Indicators of Program Quality

1. Evidence of effectiveness of the general education component of the curriculum (for undergraduates), including value-added calculation for the college using scores on the ACT COMP exam.

2. Evidence of the achievement of desired outcomes of instruction for students, including results of comprehensive examinations and regional/national competitions, and documentation of placement and career success by graduates.

3. Assessments of program quality by enrolled students (both majors and non-majors) and graduates.

APPENDIX 3

Interim Report on General Education

THE UNIVERSITY OF TENNESSEE
DEPARTMENT OF RELIGIOUS STUDIES

knoxville 37916
mc clung tower
phone 615-974-2466

Dec. 11, 1981

TO: Deans of the Colleges at UTK

FROM: W. Lee Humphreys,
Chair, Coordinating Committee on General Education

Enclosed is an interim statement drawn up by the Coordinating Committee on General Education. When this committee was formed in late 1979, as a subcommittee of the Undergraduate Council, each college was asked to designate a general education committee of its own. Our committee sent to the college committees a set of questions, and responses have been gathered, reviewed, discussed, and drawn together. The results have been tempered and supplemented by the considered judgments of this committee. The enclosed statement is the result of that process.

The committee now requests that you review this statement and pass on a copy to the person who chairs your college general education committee (if this committee has departed, disbanded, deceased, or defected, this is the chance for its renewal). We ask that you send to us your general observations about this statement as an ideal from which to consider the individual curricula of the colleges. We do not yet ask how this fits or is in line with your curriculum at this time or what specifically it would mean for them.

The committee first would like to revise this statement as it feels warranted in the light of your general observations, so that it can serve as a basis for consideration with each college of its curriculum. In this regard we would stress that the coordinating committee does not play a normative role, approving or designing programs. Our charge is to serve as a center for program assessment, to raise questions about general education from a university-wide perspective, and to gather and make available the resources and creative ideas of the several colleges. The goals of general education can be met in different ways, and the individual colleges are best situated to determine which finally meet their needs. At times we may, for necessary if lamentable reasons, fall short of our ideals. The committee wishes to bring its statement of ideals to the several curricula of the colleges in order to strengthen them where possible and to gather and make available the resources and constructive programs developed in distinct units at UTK

We will be contacting the individual colleges for further meetings in the winter and spring quarters of 1982. To preserve our momentum and facilitate this work we ask that your initial observations on the enclosed statement be sent to me by the end of the second week of winter quarter.

Thank you for your aid in this project.

W. Lee Humphreys

W. Lee Humphreys
509 McClung Tower

INTERIM REPORT OF THE COORDINATING COMMITTEE ON GENERAL EDUCATION
December 11, 1981

The general education component of all undergraduate curricula at UTK can be articulated across three distinct but interrelated areas: Basic Skills; Knowledge; Judgment and Attitudes. In some instances a specific course will focus on a subsection of one or more of these areas; in other cases areas will be honed and reinforced in courses who primary purpose may be to meet some other general educational need or to develop specialized knowledge and methods within a distinct discipline. Some of the items under "Judgment and Attitudes" are reinforced in the larger extra-curricula life of students at UTK.

I. BASIC SKILLS

1. Verbal Communication in English

A. All curricula require basic course work in English Composition (or demonstrated proficiency therein). Several colleges also underscore the need to reinforce and further develop skill in written English in additional courses designed to meet other general educational needs and/or courses in a student's specialization. The committee is in agreement, noting that this skill, like most, will atrophy if not utilized. Effective writing should, therefore, be a stated requirement in a range of courses, and attention to its quality must serve as part of the basis for assessment and grading. Ideally, this should include work in a student's area of concentration in order to reinforce the fact that effective writing is essential not only for creative and responsible living in today's world, but for success in one's profession or area of specialization.

B. Skill in Spoken English is a second area noted by most colleges. In this regard actual practice varies. Some colleges require a course in speech, while others simply give lip service to this area in a general philosophical statement but do not implement it either in separate courses or as a stated component in other required courses. The committee believes that in today's world facility with the spoken word is of such importance that attention to it must be a part of all undergraduate curricula, if not in speech courses then in courses with a stated recitation component. We would stress further that attention to effective speaking should be accompanied by concentration on listening skills as an important part of oral communication.

C. A few programs call attention to a need to stress Reading Skills in the face of their perceived deterioration over the last decade. Little formal attention is given at present to this component in the curricula of the several colleges, and limited resources seem available for its implementation. Ideally, students should enter UTK with the necessary reading skills. However, continued attention to

this perceived decline with some regular assessment of students' reading skills is recommended, for deterioration in this area undermines performance at all levels.

In regard to all three subheadings under "Verbal Communication in English" the committee urges that a minimal level for college entrance be defined, and that students admitted to UTK who fall below this level be required to take remedial work at the outset of their college experience. It is also important to assess the competence of transfer students in these skills. Introductory courses in written and spoken English must not be allowed gradually to deteriorate into remedial programs whose standards and expectations fall below what we would wish to define as a basic level of college work.

2. Computational Skills

With the exception of the program in Fine Arts in the College of Liberal Arts (as well as the present (1972) curriculum in Liberal Arts) some work in Mathematics is required in all undergraduate curricula at UTK. The committee feels that a basic level of competence is desirable in Mathematics for all UTK graduates, and we wisk to raise the question of whether and to what extent this basic level should be the same as or beyond that attainable in a person's high school preparation. For many programs, of course, a significant level of ability in some form of Mathematics beyond this base is necessary for later specialization.

At present the entrance requirements in high school mathematics vary from college to college. In light of the recent changes in the university's admission patterns, in which a student is now first admitted to the university and only at a second (and later) stage to a perticular college, the committee recommends the reassessment of all entrance requirements. The clear possibility of university-wide entrance requirements should be explored as a statement of a level of proficiency expected for successful work in all undergraduate programs at UTK. It must be recognized that individuals who have not attained this level could well be admitted with a "deficiency" (an unfortunate choice of terms) and be required to take non-credit course work to develop the required skills (on the pattern of mathematics and foreign language in the proposed curriculum for Liberal Arts.)

3. Foreign Language

At present only the College of Communication and the proposed curriculum in Liberal Arts require college-level work or demonstrated competence in a foreign language (there is an entrance requirement in foreign language in the present Liberal Arts curriculum). Other programs acknowledge the value of this area of study, both for success in one's profession in a multinational world and for creative and responsible living in our global environment. With this acknowledgement, however, it is noted that many programs are not able to include a foreign

language component as they are now designed. In light of this consideration a university-wide entrance requirement in high school foreign language should be considered (see item 2 above).

4. Computer Skills

Several colleges drew attention to the importance of acquiring basic knowledge and skill in the operation and utilization of computers in today's world. This committee suggests that this area be assessed along with foreign language because of its importance in the development of basic communication skills. We suggest that work in either foreign language or computer skills should be a part of all undergraduate curricula. It is noteworthy that the programs finding the greatest difficulty with a foreign language requirement often stress the need for skill in the use of computers and understanding their potential.

5. Problem Analysis and Solving

The formation of precise questions, the analysis of types of reasoning, the assessment of evidence, and the ability to critique an argument and weigh the claims of others are all fundamental characteristics of a creative and disciplined mind. Several colleges stressed the value of developing facility in these characteristics as a vital part of general education, not only for success in an area of specialization but also for responsible living. While it is possible to attend to these skills in one or more courses in inductive or deductive logic, it is often more desirable that a full range of courses address implicit methodological questions. Whether attained in a specific course or as an aspect of other courses, these skills must be consciously utilized and developed throughout one's college program.

II. KNOWLEDGE

As we move to the second and third areas unanimity among colleges is not always as pronounced. What follows represents the committee's judgments regarding areas receiving substantial notice from several of the colleges. These areas may be approached from a wide range of perspectives that cut across distinct colleges and programs, and it is clearly possible that more than one can be taken up in a given course or sequence of courses. It is not the intention of the committee to indicate or design specific courses. The areas defined are presented as vital for all educated persons, and serve not simply as a basis for more in-depth work in a discipline or profession.

1. Aesthetics

The several colleges generally agreed that appreciation of forms of the arts is vital to any program of general education.

Attention to literature, art, music, architecture, and the theatre as modes of human expression and creativity and as attempts to articulate through symbols human experience and a sense of place in the cosmos should be a part of the background of all who receive a baccalaureate degree from UTK. This experience may be attained either through courses that stress the practice of some form of the arts or through their appreciation. It is not, however, enough simply to ask students to select from an ill-focused list of humanities courses, and it must be recognized that attention to the aesthetic dimensions of human life is appropraite in a wide range of programs and courses.

2. The Scientific Basis for Life

The committee wishes to include within this broad designation attention to human wellness, to the basis of life and the functions of the human body in its environment that lead to a state of relative well-being. In this regard nutrition and human development are considered essential. Respect for the environment and an understanding of ecological processes and balances are fundamental as well. There was near unanimity among colleges that attention to the basic methods of science and the processes of scientific inquiry and argumentation also form a necessary component of an educated person's perspective.

3. Technology

Technology, in the broad sense, is an inherent part of human endeavor and, as an interaction of human skills, science, engineering, economics, and invention provides for the needs and desires of individuals and their societies. Technology does and will increasingly use physical and human resources. The technological perspective implies an understanding of these interactions independent of an individual's discipline or profession. All undergraduates must understand that the forces and dynamics of technological change impact lives in many ways, and ignorance of them limits the ability to direct change wisely.

4. History of the Western World

We live in time and are informed fundamentally by our past. Therefore, attention to the major forces, movements, institutions, and persons in our western heritage is generally recognized as essential for self-understanding by the several colleges. Consideration of the methods utilized by the historial in assessment of evidence and construction of arguments is also important, as is attention to the basic cultural, economic, political, social. and other factors that influence human change through time.

5. Foreign Culture

We live in a world that now binds cultures and nations together in ways that demand immediate and intense contact. Attention to distinct cultural traditions, to different literatures and arts, to distinct patterns of value, different political and legal institutions, philosophical and religious traditions, as well as histories and senses of history, expose us to enduring patterns of civilization that are not immediately our own and provide us with a distinct perspective regarding our own. Attention to the problems and possibilities for communication between cultural traditions is an important component in this.

6. Economics and the Management of Resources

Several colleges directed attention to the world-wide economic factors that define human life, including a basic understanding of the dynamics of the market and the production and distribution of essential goods and services. Attention should also be given to the issues that face us as consumers as well as producers, and to the articulation of values and priorities expressed through the ways as individuals and as groups and nations we handle and account for our handling of resources and skills. The complexity of and competition between values and priorities, often on a multi-national level, demands consideration.

7. The Social Sciences

Understanding of the social forces at work in the world, including especially the changing roles of education, business, government, politics and the law, the media, and the family is a vital component of general education that each college noted in some manner. The methods and perspectives of the social sciences impact on many programs and courses in the several colleges and divisions that make up UTK. Attention to this should include exposure to the origins, nature, and some evaluation of the scientific and humanistic approaches to human social life and the individual's development of a sense of self. A basic facility in the social scientific presentation of data and the interpretation of statistics should be attained as well.

III. ATTITUDES AND JUDGMENTS

Within this broad category the committee has drawn together a range of qualities of mind and action that were stressed by several colleges that we believe can be reinforced and honed in both the classroom and the extra-curricula life at UTK. Utilization of the many resources and opportunities across this campus that are not directly linked to the classroom, ranging from visiting speakers, theatrical production, concerts, displays, the activities of university governance and program development, etc., through less formal aspects of student

life, provides resources for adding richness and a dimension of experience to the formal curricula. The awareness that a student's development in his/her years at UTK are strongly influenced by formal and informal structures of life on this campus is important in the assessment of the impact of any curriculum.

1. Values

The ability to articulate value questions, to seek necessary information, to imagine creative alternatives, to assess solutions, and to be aware of the immediate and indirect implications of decisions and actions is essential for responsible life in today's world. Awareness of the ways in which specialized areas of knowledge and activity shape the lives of others and the environment is an aspect of professional life that cannot be ignored. Exposure to those norms and issues that have traditionally informed our value decisions as individuals and as groups should accompany self-reflective consideration of one's personal values. This is not to be so construed that the university is perceived as imparting a particular code of conduct or sectarian set of values beyond those essential to the search for truth, responsible citizenship, a sensitivity to competing values, and understanding of different positions.

2. The Dynamics of the Political and Social Arenas

The committee deems it important that the the student be exposed to the process of working with others in setting goals, constructing programs of action to meet and implement goals, and assessing a course of action undertaken. Awareness of the structures of control within a society and the limits in which leadership is exercised and responsible social action initiated is a component of this. Vaules are often implemented through formal and informal political and social groups. The ability to understand the processes of such groups and, if desired, to work effectively within them is important.

3. Personal Wholeness

The committee supports the belief expressed by some colleges that a vital aspect of one's college experience should be the opportunity and challenge to reflect personally on one's goals and values as well as one's opportunities. An appropraite integration of self-knowledge, abilities, interests, and values with current career opportunities leads to responsible and creative lives and personal satisfaction.

4. Life-Long Learning

Within all specializations and professions new skills and knowledge will repeatedly have to be mastered, for knowledge is not static and is never complete. Many will be asked to retool, to take on new challenges and to seize new opportunities. One's college experience should open one onto a life-long

course of learning and provide a cutting edge that will facilitate continued individual and professional development and the ability to live creatively with change.

5. Experience in Learning

It is no denial of the vital place of the classroom and lab to observe that the world is not simply a set of classrooms and labs. An experiential dimension of the relationship of learning to the larger world is desirable where appropraite and possible. This could range from formal programs of field work and co-oping through close working with others, both faculty and students, on a creative project in one's area of interest. The nature of such work will, of course, vary greatly from program to program.

Coordinating Committee on General Education:

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Religious Studies
Lawrence M. DeRidder
Educational Psychology
Thomas C. Hood
Sociology
Durward S. Jones
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Ken Kenney
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Kelly Leiter
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Jane Savage
FSNFSA
Laurence N. Skold
Plant and Soil Science
E. Eugene Stansbury
Chemical, Metallurgical, and Polymer Engineering
Otis H. Stephens
Political Science
Roy Smith
Student Member
Andy Hoover
Student Member

APPENDIX 4

Sample Interview with Dean
August 1981

Notes

Interview with Dean Bill Coffield
College of Education
August 1981

Specific Field Test

National Teacher Exam required of all seniors who are prepared to teach. Data from 3-4 years (NTE is not a valid predictor of teaching effectiveness.) NTE will change dramatically next year. No use made of results because they are not curriculum-related.

General Education

In 1980 36 seniors in Education took the ACT COMP. They represented the College fairly. In 1981 only 4 seniors showed up for the exam.

No use was made of 1980 scores on COMP.

Student Satisfaction

1) Quarterly assessment of the teacher ed program is provided by students completing student teaching.

Use: Results are sent to each department head each quarter. Consistently low marks for preparation in learning theory, classroom management, and tests and measurement has lead Dean to call for curriculum change in the Ed and Counseling Psychology Department.

2) BERS conducts each year a survey of a sample of graduates asking for assessments of the teacher education program.

3) In 1981 a survey form was sent to principals who employ College of Ed graduates. Findings from (2) and (3) are made available to department heads.

4) Program Committee 4 years ago developed an evaluation scheme for use in all program areas.

Use: Department of Curriculum and Instruction dropped 95 courses and added 42 new ones. This kind of evaluation will be conducted again in 1982-83.

5) Evaluation of classroom teaching - Every department employs some form of student feedback. Annual review by department head and applications for promotion require some "objective evidence" of teaching effectiveness. Approximately 80% of faculty use an evaluation form (Dean's estimate) ranging from a few questions to Milton's form. Dean feels peer evaluation would be worthless -- no one will speak ill of a colleague.

6) No college-by-college report was provided for colleges using the ACT Student Opinion Survey. Thus no use was made of the results.

7) Coffield wants to institute exit interviews with graduating seniors.

8) Deaf education graduates used to be asked to complete a survey evaluating their undergraduate program. But this was discontinued. Now no department follows up its graduates.

Evaluation consultants: Tom George and Sky Huck

APPENDIX 5

Task Force Reports

on

General Education

Student Achievement in Specific Fields

Student Satisfaction with Programs and Services

REPORT

OF THE

STUDENT OUTCOMES TASK FORCE

ON

GENERAL EDUCATION

June 1982

Task Force Members

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NCHEMS-Kellogg Student Outcomes Project

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REPORT
OF THE
STUDENT OUTCOMES TASK FORCE ON GENERAL EDUCATION

General Education at UTK

In order to identify and/or construct valid methods for measuring student achievement in general education at the University of Tennessee, Knoxville, it was essential first to define the goals of general education at UTK. The Task Force on General Education adopted as its working statement of these goals the October 11, 1982 Report of the UTK Coordinating Committee on General Education. That report contains the recommend ·ion that the general education component of all undergraduate curricula at UTK be articulated across three distinct but interrelated areas: Basic Skills, Knowledge, Judgments and Attitudes. An outline of the contents of the three general areas appears below.

I. Basic Skills
   1. Verbal Communication in English
      A. English Composition
      B. Spoken English
      C. Reading Skills
   2. Computational Skills
   3. Foreign Language
   4. Computer Skills
   5. Problem Analysis and Solving

II. Knowledge
   1. Aesthetics
   2. The Scientific Basis for Life
   3. Technology
   4. History of the Western World
   5. Foreign Culture
   6. Economics and the Management of Resources
   7. The Social Sciences

III. Attitudes and Judgments

1. Values
2. The Dynamics of Political and Social Arenas
3. Personal Wholeness
4. Life-long Learning
5. Experience in Learning

The Report of the Coordinating Committee on General Education is a draft of a statement of broad goals for general education at UTK. Selection of a methodology for measurement of student achievement should be based on a statement of much greater specificity -- that of student objectives or competencies related to each of the goals of general education.. However, the goals statement was accepted because it was the best guide to faculty thinking about general education that was available on the campus in 1982, and because the study of the field of measurement of general education which was undertaken by members of the Task Force revealed that the state-of-the-art in specificity of statements of desirable student outcomes at UTK is paralleled by the state-of-the-art in measurement of general education outcomes at the national level.

Measures of General Education Outcomes

The Task Force membership considered four of the most widely known current standardized methodologies for measurement of general education outcomes:

1) The ACT COMP (Comprehensive Outcome Measures Project)
2) The ETS Undergraduate Assessment Program
3) Georgia's Regents' Examination
4) A series of instruments developed by McBer and Company.

Items 2 and 3 above were eliminated rather quickly from detailed consideration because the UAP was discontinued by ETS in 1981 and because Georgia's Regents' Exam is a test of communication skills alone.

The ACT COMP is a test of the competencies or outcomes which should result from general education as defined by a representative group of educators in some 150 postsecondary institutions and agencies. The test purports to measure skills necessary for effective adult functioning. Its development began in 1976 and it has been administered three times (Spring 1980, 1981 and 1982) to samples of UTK graduating seniors. Six scale scores may be obtained from the COMP:

1. Communicating
2. Solving Problems
3. Clarifying Values
4. Functioning Within Social Institutions
5. Using Science and Technology
6. Using the Arts

Members of the Task Force on General Education concluded that the COMP measured reasonably well in a general way student achievement in "Basic Skills" and "Knowledge," UTK General Education Areas I and II. However, the specific areas of Computational Skills, Foreign Language, Computer Skills, History of the Western World, and Foreign Culture are not addressed to a satisfactory extent. In the COMP Objective Test, the multiple choice form of the exam that has been given heretofore at UTK, Verbal Communication in English is not adequately assessed. However, the longer form, the Composite Examination, does contain more satisfactory means of assessing Verbal Communication skills.

Three of the McBer instruments were studied by Task Force members:

1) Test of Thematic Analysis

2) Analysis of Argument Test

3) Thematic Apperception Test

Although there are deficiencies in reliability and validity, scoring of protocols is relatively expensive, and the tests do not adequately measure basic skills or knowledge, the McBer instruments do measure some aspects of the concepts included in UTK General Education Area III, "Attitudes and Judgments." Such individual characteristics as motivation, intellectual flexibility, and self-definition are measured, as are thought patterns, attitudes, and analytical capacities. Students being tested are required to analyze, evaluate, and synthesize data; to communicate their thoughts and defend their arguments.

Task Force Recommendations

Members of the Task Force on General Education endorsed unanimously the concept of testing students' achievement of specified general education outcomes. Increasingly the University is called upon to demonstrate the quality of its programs and the positive impact of these programs on students. Periodic administrations at UTK of one or more measures of achievement in general education can provide a systematic basis for assessing:

1) the extent to which the general education objectives specified by the institution are being achieved by its students;
2) the level of achievement of general education objectives by students at UTK as compared with students at other post-secondary institutions, i.e., as compared with national norms; and
3) the relative effects of significant curriculum changes undertaken by the institution.

The information thus obtained can be used to demonstrate the effectiveness of the general education program at UTK to students and their parents; to alumni and friends of the University; to the public; and to the Tennessee Higher Education Commission, whose performance funding mechanism requires such evidence. The information also can be used in a very practical way by faculty and administrators in decision-making and planning for program improvement; e.g., identification of strong and weak program components has implications for:

1) evaluating teaching effectiveness;
2) adding, modifying, or phasing out courses or program areas;
3) budgeting; and
4) selecting materials for the library.

On the basis of its study of measurement methodologies the Task Force concluded that no examination which is available currently will assess adequately student achievement of all general education competencies considered important by curriculum planners at UTK. However, despite its limitations, the ACT COMP is the best instrument available now for measuring general education outcomes at this institution. Basic skills and general knowledge are assessed in a competent manner; the examinee receives information in a variety of modes: by reading, listening, and viewing; and the format, length, and structure of the COMP make it relatively economical ($8.00 per scored student protocol) to administer and score. It should be noted that the ACT COMP is designed to produce group data that can be used in program assessment and improvement. Individual scores are not sufficiently reliable to make the instrument appropriate for advising students concerning their own strengths and limitations.

Task Force members perceived the McBer Test of Thematic Analysis and Analysis of Argument Test to be promising instruments for the measurement of certain characteristics of self. For this reason the group endorsed exploratory work at UTK with these McBer instruments.

In light of the foregoing, the Task Force on General Education recommends the following actions:

1) The ACT COMP Objective Test should be given annually, at University expense, to all incoming freshmen and to all graduating seniors so that the comparison of pre- and post-program scores may yield a measure of value added as a result of the educational experience provided at UTK. In light of the costs involved in scoring the test, a representative sample of answer sheets may be selected for processing by ACT.

2) A statement of the requirement for all freshmen and all seniors to take a test which measures achievement in general education should be placed in the catalog of the University of Tennessee, Knoxville.

3) Programs should be conducted for the purpose of acquainting a large segment of the faculty with the objectives and potential value to the institution of measuring achievement in general education.

4) All current general education testing methodologies should be considered tentative and in a state of evolution. Colleges should be encouraged to develop supplementary measures of their own, such as follow-up studies of graduates' perceptions of own achievement. An interdisciplinary group of measurement specialists at UTK should be identified and charged with the responsibilities of:

a. assessing the usefulness of the ACT Objective Test and Composite Examination (the long form of the test which requires the examinee to construct some written responses) and the Activities Inventory for the measurement of general education outcomes at UTK;

b. assessing the usefulness of the McBer tests as a supplement to the COMP in measuring characteristics of self; and

c. constructing valid methods of measuring those outcomes of general education at UTK which are not measured by the ACT or McBer instruments, such as computational and computer skills and cultural perspectives.

REPORT

OF THE

STUDENT OUTCOMES TASK FORCE

ON

STUDENT ACHIEVEMENT IN SPECIFIC FIELDS

June 1982

Task Force Members

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R E P O R T

of the

STUDENT OUTCOMES TASK FORCE ON STUDENT ACHIEVEMENT

IN SPECIFIC FIELDS

Sources of Information Used Most Often in Assessment of Academic Programs

In its initial deliberations the Student Outcomes Task Force on Achievement in Specific Fields questioned the relative importance of student outcomes data as a source of information for assessing and improving academic programs.

Task Force members acknowledged that student scores on standardized instruments such as the Fundamentals of Engineering Examination and the National Teacher Examination, and evaluations of student performance by faculty and/or employers, constituted comparatively objective information for use in program assessment and decision-making. Nevertheless, members were able to provide documentation for their contention that several other information sources, some much less objective, were used more often and given more weight in decision-making than student outcomes information. The information sources identified included:

1) Faculty
   a. Formal and informal assessments and recommendations
   b. Committee recommendations
2) Administrators
   a. Philosophical/managerial orientation of department head or dean
   b. Directives from central administrators
   c. Institutional goals and designated responsibilities

3) Students

   a. Formal and informal feedback

   b. Structured contacts with selected students (e.g., Deans' advisory groups)

   c. Surveys of current students and alumni to obtain their perceptions of their achievement

4) Accrediting organizations

   a. Specified program criteria

   b. Local unit goals prepared in response to general guidelines

   c. Self-study data prepared for an accreditation review

   d. Reviewers' recommendations following an accreditation review

5) Employers

   a. Informal contacts with employers at professional meetings, social occasions

   b. Remarks made by employers concerning the performance of student interns

6) Mandates provided by federal and state laws

7) Mandates provided by policies of state licensing or governing boards

8) Professional associations and other interest groups

Members of the Task Force contended that most University faculty and administrators are quite comfortable using the relatively inexpensive, easy-to-obtain information from these varied sources and have some doubt that the quality or substance of their decisions about academic programs would be altered or improved significantly by the use of structured data obtained from more expensive measures of student achievement. At least four reasons for this doubt were identified:

1) A test of student achievement in a specific field merely samples the skills and knowledge imparted by the educational experience in the field.
2) The types of questions and scoring procedures used in such tests often leave unanswered questions about what the student actually knows. For example, multiple choice questions do not permit analysis of the thought processes in which the student engages to arrive at a response. Partial credit is not given for a nearly correct response, and on the other hand, guessing is not penalized.
3) Unless all seniors in a program take the advanced test in their field, questions are raised about the representativeness of the sample that did take the test.
4) Unless the advanced examination in a specific field is given to freshmen, which in most cases is clearly inappropriate, there are no baseline data against which to compare senior scores and thus to evaluate the value added by the educational experience.

Nonetheless, some Task Force members voiced strong support for the systematic collection of structured information about student achievement in their major field of study because:

1) If an examination can be located or constructed that measures some or all of the objectives of a course of study, student scores on such an examination can constitute valid evidence of program effectiveness and suggest areas for improvement.
2) Standardized test scores constitute normative data that permit comparison of student achievement across programs or institutions. If students in a given program consistently achieve high scores, the program's prestige is enhanced.

Sources of Information Concerning Student Achievement in Specific Fields

Task Force members considered each of the measures of student outcomes in specific fields that is available for programs offered at UTK. In so doing they noted the difficulty inherent in attempting to distinguish achievement in some major fields from achievement in general education. Seven types of specific field measures were identified:

1) Standardized examination (licensing exams in nursing, engineering, architecture, the National Teacher Exam, etc.)

2) Locally developed comprehensive examination or competency assessment based on objectives established by the academic unit.

3) Evaluation by faculty of a comprehensive student achievement, for example, observation of a student performing a task; assessment of a work of art, a design portfolio, a technical paper.

4) Evaluation of a comprehensive student achievement by an external reviewer, i.e., member of a visiting accreditation or program review team, an internship supervisor, a co-op or other employer.

5) End-of-program assessment by seniors, reporting perceptions of their own achievement (may be written or obtained in an exit interview).

6) Retrospective assessment of their achievement by alumni one or several years after graduation.

7) Assessment by employers of the competencies of alumni one or several years after graduation.

The following examples of the above measures are included in Appendix A:

Example of #2: Specification of competencies for State Certification Area 4 for school psychologists

Example of #3: Evaluation of Student Teaching

Example of #4: Practicum Supervisor Evaluation

Example of #5: Education: Student Teachers Evaluation of the Teacher Education Program

Example of #6: Survey of UTK College of Engineering Graduates

Example of #7: College of Nursing employer questionnaire

Analysis of Measures of Student Outcomes in Specific Fields

Several of the academic units that employ a standardized measure of achievement in the major field of study for seniors or graduates (Measure #1 above) completed the form "Assessment of Advanced Examinations in Specific Fields" (see Appendix B). The results are recorded in Table 1.

In general, the costs of administering and scoring a standardized examination that is required for licensure are borne by the student rather than the institution. For instance, the Engineering student who takes the Fundamentals of Engineering exam pays a $15 fee, and a charge of $50 is paid by each student who takes the State Board Exam in Nursing. The Business Assessment Test, which is not a formal requirement for graduation, has been administered by the College of Business at a cost of $1800 per year.

Several academic units at UTK reported that there is no standardized instrument for measuring student achievement in their programs.

Representatives of two of these units responded to a suggestion in the form "Locally Developed Field Test" (see Appendix B) that they develop their own competency-based assessment of student achievement (Measure #2 above). Their responses suggested that most units would consider it difficult, if not impossible, and perhaps philosophically unacceptable, to develop such a measure. Reasons given for this position include:

1) difficulty in achieving agreement among faculty on a specific statement of measurable program goals and objectives;
2) time and cost involved in constructing a reliable, valid assessment instrument;
3) limitations in locating persons with sufficient technical training and experience to undertake the task of test development.

TABLE 1

Some Information About Advanced Examinations in Specific Fields

Name of Exam	Is Total Score available for your graduates?	How is Total Score Used?	Are subtest scores available for your graduates?	How are subtest scores used?	Reason(s) for Giving Exam	Problems with Making Use of Scores
National Teacher Examinations	Yes	Not used. No cut-off score established. Test being revised.	Yes	Not used. No cut-off scores established.	State Board Requirement	Exam has been required for too short a time for meaningful results to be available.
State Board of Nursing Licensure Examination	Yes	As one source of information for making decisions about effectiveness of college curriculum.	No	--	Graduates need the license to practice nursing.	None
Fundamentals of Engineering Exam	Yes, by major but not for each individual.	As one source of information about curriculum effectiveness. However, information is not course specific.	No	--	It constitutes the first step toward legal recognition for practice of engineering.	Only fundamental knowledge and skills are measured, some of which are acquired in course work outside College of Engineering. Exam does not measure learning in specific engineering fields.
Business Assessment Test	Yes	In support of continuing accreditation and in demonstrating the quality of the College curriculum.	Yes	As one source of information for assessing strengths and weaknesses of curriculum. Changes have been made as a result of applying information gained from the test scores.	To obtain macro assessments of curriculum effectiveness. To obtain relatively objective measure of program effectiveness that can be used in demonstrating program quality to alumni, accrediting agencies, University administrators.	Test no longer available. Some formalization of the right of the College to require such an examination would be helpful.

Measures #3-#7, while somewhat more subjective than #1 and #2, appear to enjoy more widespread acceptance among representatives of academic units at UTK. Design of the evaluative criteria used in these measures does not require the level of expertise in measurement that is needed to construct a standardized paper-pencil examination. Thus individual faculty in the academic unit can be involved in developing, as well as administering, and scoring or reviewing, Measures #3-#7. The cost of these procedures is usually borne by the unit. Exclusive of the faculty time required to design the instrument and interpret the results, the cost of associated with Measures #3-#7 varies from a modest figure for duplicating sufficient quantities of the instrument to approximately $500 for a follow up survey involving multiple mailings to several hundred alumni.

RECOMMENDATIONS

On the basis of its study of measures of achievement in specific fields, the Task Force makes the following recommendations:

1. Faculty in each academic unit should determine whether or not there is a standardized instrument available for measuring student achievement in the major field(s) of study offered by the unit. Inquiries should be made through professional organizations, accrediting or licensing agencies, and/or research/service units at UTK. If an acceptable standardized instrument is available, the academic unit should require that every graduating senior take the examination.

Mean scores for classes of students should be compared with national means in making judgments concerning program quality.

2. If the academic unit does not have access to a standardized test of student achievement in the major field of study, the faculty should consider undertaking the task of developing its own measure. Since the development of a reliable and valid standardized test requires considerable time, expense, and technical expertise, caution is advised in choosing this approach.

3. As alternatives, and as supplements, to standardized tests, faculty in each academic unit should develop or adapt one or more of the following methodologies for systematically gathering data on student achievement in the major field of study (see page 4 for more detailed explanation of each):

a. Evaluation by faculty of a comprehensive student achievement
b. Evaluation of a comprehensive student achievement by external reviewer
c. End-of-program assessment by seniors, reporting perceptions of their own achievement

d. Retrospective assessment of their achievement by alumni.

e. Assessment by employers of the competencies of alumni one or several years after graduation.

These methodologies should be employed annually if economical to do so, or at 2- to 5-year intervals as the unit deems appropriate. The timing should be such that the information is sufficiently current and representative to be useful in program planning and decision-making. In addition to the immediate utility to the academic unit in demonstrating program quality to various audiences and in identifying areas from improvement, data thus collected can be used in comprehensive program reviews and in reporting to accrediting agencies and the Tennessee Higher Education Commission.

[APPENDIX A] Example of #2

Area 4

--- State Certification Area Competency Definition

"The psychologist should be able to devise strategies for assisting the school administration and staff to evaluate the effectiveness of the school program in meeting the academic and social needs of the students and adults the school serves.

Specifically, the school psychologist should be able to develop and evaluate a wide variety of data-gathering investigations; to understand basic inferential and descriptive statistics; to gather and interpret related research literature as it affects psychological and educational programs; and to translate research data into psycheducational practice."

4.1 Demonstrates knowledge of basic descriptive and inferential statistical concepts and methods including:

4.11 Descriptive statistical methods including properties of raw and various converted scores, frequency distributions & their graphical representations, measures of central tendency, & measures of variability.

4.12 Inferential statistical methods including probability theory, t-test, ANOVA, and non-parametrics.

4.13 Correlational methods to analyze reliability, validity, and association between variables.

4.2 Demonstrates knowledge of research and evaluation as applied in field settings.

4.21 Given a significant school-related problem, locates and reviews relevant literature.

4.22 Selects an appropriate investigation strategy and plans for collection of relevant data.

4.23 Demonstrates a functional knowledge of contemporary research standards, especially with respect to ethical safeguards and legal requirements.

4.24 Interprets and communicates research information in a manner that is intelligible to and useable by teachers, administrators, students, school boards, or parent groups.

4.25 Demonstrates basic user knowledge of computer system capabilities.

4.3 Collaborates with administrators and others in reviewing and evaluating a system-wide testing and evaluation program.

Area 5

State Certification Area Competency Definition

"The psychologist should demonstrate ability to understand the roles of others with whom he will have to work in the school & community.

Specifically, the psychologist should demonstrate knowledge of the job description, including goals, of other personnel; e.g. administrators, teachers, social workers, health workers, attendance workers, guidance personnel, and special education workers. He/she should also demonstrate his ability to identify and work with these and other community resources."

5.1 Discriminates between and describes the stated (formal) and implicit (informal) goals and role functions performed by administrators, teachers, and support personnel (including self).

5.2 Identifies the typical referral agencies in a metropolitan area and describes their roles and functions.

5.3 Serves as an efficient linkage between client(s) and service(s) by selecting and utilizing resources suited to the particular needs of an individual or group.

Area 6

State Certification Area Competency Definition

"The psychologist should demonstrate knowledge of the organizational structure and dynamics of schools, and their inter-relationships with other systems in the community. He should demonstrate knowledge of strategies for enhancing the functioning of administrative and supervisory personnel.

In addition, the psychologist should demonstrate familiarity with the curricular patterns typically available in schools, as well as with innovations in this area. This may include such things as knowledge of

Example of #3

EVALUATION OF STUDENT TEACHING

The University of Tennessee/Knoxville — College of Education

Name of student teacher _____
Last First Middle

Grade: _____ Satisfactory _____ No Credit

University Coordinator _____ Cooperating Teacher(s) _____

Student Teaching Center _____

Subject area and/or grade level in which student teaching was completed _____

_____ . Quarter _____ Year _____

STUDENT RELEASE REQUEST

I request that this evaluation become a part of my placement record.

Signature _____

I hereby grant permission to the College of Education, University of Tennessee, to extend to prospective employers the contents of this evaluation.

Signature _____

DIRECTIONS FOR EVALUATING

Following are student-teacher characteristics believed to have an influence on teaching effectiveness. The continuum offers a means by which the student teacher's effectiveness for that characteristic can be compared to other student teachers—not to experienced faculty. A rating of "Good" on this scale indicates that the characteristic being considered is acceptable and that the student teacher will probably be able to operate effectively in a normal classroom situation. Deviations on either side of "Good" reflect the coordinator's judgment that the student teacher will be either more or less effective than "Good" for that particular characteristic in a normal classroom situation.

The comments section provides space for supporting evidence of the rating on the continuum. These comments may provide specific information or impressions about the student teacher which describe significant strengths or weaknesses which cannot be presented on a rating scale.

SUPERIOR:	VERY GOOD:	GOOD:	MARGINAL:	UNACCEPTABLE:
Reveals qualities found in only the most effective and creative student teachers.	Clearly above average. Goes well beyond meeting the basic requirements.	Acceptable, respectable performance. Meets basic requirements.	Acceptability only marginal; the quality of the characteristic needs improvement.	Quality of the characteristic is below minimum standards for certification.

1. Description of student teacher's teaching personality. Proper perspective of teaching-learning situations is maintained by the student teacher; student teacher remains "open" and flexible.

Comment: _____

SUPERIOR: VERY GOOD: GOOD: MARGINAL: UNACCEPTABLE:

2. Apparent health and vitality:

Comment:

3. Voice and language usage:

Comment:

4 Ability to work cooperatively with other staff members:

Comment:

5. Ability to profit from feedback supplied by observational techniques:

Comment:

6. Ability to make realistic decisions, has maturity of judgment:

Comment:

Example of #4

PRACTICUM SUPERVISOR EVALUATION

Practicum Student _____ Employed by _____

1. How many hours did the student work each week? _____ Total hours for the term? _____

2. Did the practicum student adhere to work schedule as outlined at beginning of school term, reporting promptly and regularly throughout the period covered?
Yes _____ No _____

3. Briefly, summarize various responsibilities and tasks performed while assigned to you.

_____

_____

_____

4. Was the student fast enough in the performance of assigned work? Yes_____ No _____

5. Did the student's general work habits appear to be good and was overall performance satisfactory? Yes _____ No_____

6. Was the student's attitude good toward work and did he/she get along well with associates and others with whom he/she came into contact? Yes _____ No _____

7. Was the quality of work on a par with other professionals and did the student appear to have sufficient background for work performed? Yes_____ No_____

8. How would you rate the student's overall performance? Excellent_____ Good_____

Average _____ Below Average _____

9. Are there areas in which the student needs to improve? Yes _____ No_____

If yes, which ones? _____

_____

_____

10. If you had a vacancy on your staff, would you consider employing the student on a permanent basis in a position for which he/she were qualified? Yes_____ No_____

11. REMARKS (Please give question number and elaborate upon answers above as necessary. Do you have suggestions for improving the practicum work experience program or the educational background or qualifications of students in the program?)

_____

_____

_____

_____
(Supervisor signature)

_____
(Date)

_____
(title)

STUDENT TEACHERS' EVALUATION OF THE TEACHER EDUCATION PROGRAM

(Expressed in Percent)

	Excellent		Above Ave.		Below Ave.		Poor	
	1975-1976	1980-1981	1975-1976	1980-1981	1975-1976	1980-1981	1975-1976	1980-1981
1. The degree to which the first 90 hours (General Education) contributed to your development as an "educated person" was:	11.2	13.6	55.8	64.4	22.5	17.8	4.1	1.7
2. Your insight into your own philosophy of education is now:	28.6	25.7	64.1	67.7	2.5	4.3	0.7	0.7
3. Your understanding of the social bases is now:	16.9	16.2	67.1	70.0	11.0	11.2	1.0	0.4
4. Your understanding of the historical background to contemporary issues is now:	6.3	6.5	55.9	63.8	28.3	25.7	4.9	2.4
5. Your required class observations prior to student teaching were:	15.8	17.2	40.5	47.0	29.0	28.0	8.6	5.4
6. Your preparation in your field or major was:	29.1	28.9	51.3	59.7	13.2	9.1	1.8	0.2
7. Your preparation for developing lesson plans was:	23.5	28.0	46.1	52.4	20.1	15.3	6.1	2.4
8. Your preparation for organizing and developing teaching units was:	15.5	21.8	50.0	52.8	24.7	21.6	5.4	1.9
9. Your preparation for evaluating pupil progress was:	8.9	14.2	46.2	48.5	33.6	32.5	6.9	2.8
10. Your preparation for developing and maintaining pupil interest in class activities was:	15.0	19.0	52.1	56.3	24.3	21.0	4.1	2.2

	Excellent		Above Ave.		Below Ave.		Poor	
	1975-1976	1980-1981	1975-1976	1980-1981	1975-1976	1980-1981	1975-1976	1980-1981
11. Your preparation in the psychology of learning and its application to teaching was:	13.2	11.6	51.8	60.3	27.3	22.2	3.8	2.2
12. Your preparation for understanding and handling specific behavior problems in your classroom was:	9.1	11.4	39.0	47.0	35.7	34.1	12.0	5.8
13. Your understanding of the developmental characteristic of the specific age group which you prepared to teach was:	16.8	19.2	51.2	58.6	23.2	18.1	5.3	1.5
14. Your preparation for utilizing audio-visual aids and materials in your teaching was:	25.0	20.7	30.8	35.8	28.3	31.9	11.0	8.4
15. Your preparation in understanding the factors that determine your own teaching personality and motivation was:	14.8	17.7	53.1	58.6	23.7	20.0	4.1	1.7
16. Your preparation in teaching disadvantaged children was:	6.9	12.1	21.9	42.7	43.8	35.3	21.9	7.1
17. Your preparation for teaching non-college bound students was:	5.4	9.3	33.1	47.0	39.5	31.9	14.0	8.2
18. Your preparation for teaching college bound students was:	15.1	13.8	54.8	55.2	18.6	23.3	4.4	4.1
19. Your knowledge relative to teacher employment procedures, benefits, and privileges before student teaching was:	8.4	5.8	39.8	43.5	35.2	37.1	11.5	11.0
20. In general, the instruction which you received in classes in the College of Education was:	7.6	10.8	52.5	63.8	27.5	19.4	7.6	3.9

Survey of UTK College of Engineering Graduates Example of #6

1. Education in basic sciences (physics, chemistry, biology, and other life sciences) and mathematics. Rating number (1-5). _____

1	2	3	4	5
Weak in mathematics and all of the above basic sciences.	Strong background in mathematics through algebra and trigonometry and at least one of the above basic sciences.	Strong background in mathematics through calculus and differential equations and at least one of the above basic sciences.	Strong background in mathematics through calculus and differential equations and at least two of the above basic sciences.	Strong background in mathematics through calculus and differential equations and basic sciences.

2. Education in engineering fundamentals. Rating number (1-5). _____

1	2	3	4	5
Can handle only handbook situations.	Able to handle problems similar to ones with previous experience but has difficulty handling new problems.	Adequate understanding of the fundamentals and adequate ability in relating theory and practice.	Strong background in the theoretical foundation of the discipline and sometimes able to apply the fundamentals to new specific problems.	Strong background in the theoretical foundations of the discipline and always able to apply the fundamentals to new specific problems.

3. Education in advanced engineering technology of the discipline. Rating number (1-5). _____

1	2	3	4	5
Does not read current technical literature.	Occasionally reads current technical literature.	Reads current technical literature regularly.	Reads current technical literature regularly and occasionally has a formal continuing education experience.	Reads current technical literature regularly and has a formal continuing education experience at least once a year.

4. Education in professional support studies (economics, humanities, social sciences, etc.). Rating number (1-5). _____

1	2	3	4	5
Is a one-dimensional engineer.	Could become interested in non-engineering fields which are relevant to engineering.	Has an interest in non-engineering fields which are relevant to engineering.	Has an interest in, and knowledge of, non-engineering fields which are relevant to engineering.	Has an interest in, knowledge of, and ability to communicate with individuals from non-engineering fields which are relevant to engineering.

5. Education and ability for written communication. Rating number (1-5). _____

1	2	3	4	5
Is unable to communicate ideas in writing.	Writes adequately with difficulty.	Writes well with ease.	Writes well with ease and speed, and is able to sell ideas in writing.	Has professional creative writing ability.

Example of #7

THE UNIVERSITY OF TENNESSEE COLLEGE OF NURSING
Knoxville, Tennessee

Graduates of our baccalaureate program have indicated that they are or have been employed by your institution. Would you please complete this questionnaire so that we may evaluate and improve our program.

1. Are graduates usually able to make the transition to professional nursing practice in:

   2 months _____
   4 months _____
   6 months _____
   Other _____

2. Are graduates able to adapt to the ordinary routine operation of your institution in:

   1 month _____
   3 months _____
   6 months _____
   Other

3. When are graduates able to anticipate needs, organize tasks and set priorities for nursing care?

   1 month _____
   3 months _____
   6 months _____
   Other _____

4. Do graduates demonstrate the ability to assess and evaluate client needs and develop a plan of care accordingly?
   Yes _____ No _____

5. Are graduates able to determine priorities in nursing care?
   Yes _____ No _____

6. Do graduates readily assume the role as teacher for clients and families?
   Yes _____ No _____

7. Do graduates recognize the need for and give appropriate priority to discharge planning?
   Yes _____ No _____

8. Do graduates serve as professional role models for other personnel?
   Yes _____ No _____

9. Are graduates cognizant of their role as members of health teams and establish collaborative relationships with others?
   Yes _____ No _____

ASSESSMENT OF ADVANCED EXAMINATIONS IN SPECIFIC FIELDS

Program Area or Specific Field:

Name of Examination:

1. Total score

   Do you receive the mean total score obtained by your graduates on the exam at least annually?

   If so, what use is made of this information by your unit?

2. Specific areas (subtests) covered in the exam (please list):

   Do you receive the mean subtest scores obtained by your graduates at least annually?

   If so, what use is made of this information by your unit?

   If not, what steps would have to be taken to obtain the mean subtest scores?

   What use would be made of the subtest information if you had it?

3. What are the reasons for having your graduates take this examination?

4. What, if any, are the problems with making use in your unit of information obtained from this exam (e.g., Is the content of the exam considered irrelevant to your curriculum?)?

LOCALLY DEVELOPED PROGRAM FIELD TEST

If there is no externally validated examination to measure student achievement in your program field, please consider using broad objectives such as those on the attached page to develop specific student competencies that can be measured.

What advantages for your unit could you identify for use of this approach, e.g., how could the results be used in program assessment and improvement?

What problem, if any, would be associated with developing, administering, and using the results of such an examination?

REPORT

OF THE

STUDENT OUTCOMES TASK FORCE

ON

STUDENT SATISFACTION WITH PROGRAMS AND SERVICES

June 1982

Task Force Members

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Report
of the
Student Outcomes Task Force on
Student Satisfaction with Programs and Services

I. Introduction

The major goal of the Student Outcomes Task Force on Student Satisfaction with Programs and Services was to examine existing methods for measuring student satisfaction/dissatisfaction with programs and services and to evaluate their usefulness for program assessment and improvement. Achieving this goal has involved several more specific tasks, including:

(1) defining satisfaction/dissatisfaction, programs and services, and the relationship between program quality and satisfaction,

(2) identifying available methods for assessing satisfaction and outlining their strengths and weaknesses for the purposes of this project, and

(3) recommending a measurement strategy for use at UTK (subject to review and further modification after review by department heads).

This report summarizes discussion and conclusions with respect to each of these specific tasks.

II. Defining the Problem

Defining the problem has focused on three issues:

(1) What is satisfaction?

(2) What programs and services should be examined?

(3) What is the relationship between program quality and student satisfaction?

Discussion of the nature of satisfaction has been inconclusive. The task force generally agreed that individuals may possess a subjective state of satisfaction/dissatisfaction and that this "feeling" may be an important influence on behavior. But what constitutes this sense of satisfaction and how it relates to behavior is unclear. Recognizing that there may be multiple conceptualizations of satisfaction, the strategy of the task force

was to evaluate instruments which purport to measure student satisfaction and derive from these measures an idea of how satisfaction has been defined.

The range of possible programs and service with which students could express satisfaction is quite broad. Thus, the committee spent some time determining what level of programs/services was appropriate for the overall goals of the Kellogg Student Outcomes Project. Since the major objective of the project is to improve program planning at the department level (or program level in colleges where this is appropriate), information useful to a department head appears to be critical. This information might include estimates of satisfaction with general campus or college characteristics, but also would have to include estimates of satisfaction with more specific department or program variables (e.g., availability of courses in the major, quality of advising in the major).

In addition to the level of analysis, it is also important to identify the range of programs and services within a level which must be examined. Two sources were used to enumerate programs/services. First, existing satisfaction instruments were examined. Second, informal interviews with a small sample of undergraduate students were conducted.

A final issue which received attention was the linkage between program quality and satisfaction. Specifically, does high student satisfaction reflect a high quality program? If not, should one be more interested in building programs with high quality or high student satisfaction? While all task force members would probably emphasize the development of high quality programs, it is also apparent that one measure of quality is the satisfaction of students involved in the program. This issue was not resolved, but it was agreed that in evaluating measures of student satisfaction attention would be focused on whether these instruments also assessed program quality in some respect.

III. Evaluating measures of student satisfaction

Five existing measures of student satisfaction were chosen for review by the committee. These included :

(1) Robert Pace's "College Student Experiences"

(2) Cooperative Institutional Research Program's (CIRP) "1981 Student Information Form"

(3) National Center for Higher Educational Management Systems (NCHEMS) and the College Board's "SOIS Surveys"

(4) American College Testing Service's "Student Opinion Survey" (SOS)

(5) Dr. Gerald Hills and Ms. Jennifer Friday's "UTK Black Graduate Alumni Survey"

Each instrument was evaluated in terms of the issues identified in the preceding section (i.e., how satisfaction is conceptualized, what level of programs the instrument addresses, and whether it measures perceived quality along with satisfaction).

Pace's, College Student Experiences: This instrument is a wideranging inquiry into how students spend their time in a university setting. It includes items measuring student background characteristics (e.g., age, major), frequency of various university-related activities, perceptions of the college environment, perceived gains in a number of areas as a result of college (e.g., gaining a broad general education, writing clearly) and opinions about college. The complete instrument includes more than 120 items which take approximately 40 minutes to complete.

The items contained in the questionnaire develop a broad picture of the individuals' college experiences and may provide a variety of useful information. However, few of the items are aimed at evaluating these experiences in a way that measures some sense of satisfaction. Only three items attempt to directly measure a subjective state of satisfaction with the college experience, and these items are very general (e.g., "How well do you like college?").

While information on activity patterns would be quite useful in explaining satisfaction, the instrument does not appear to provide any direct assessment of satisfaction with programs and services at either the general university level or the department/program level. Only if satisfaction is conceptualized as the frequency with which a given activity occurs could the instrument be used as a measure of satisfaction. (For example, students who ate at the student union "very often" would be classified as satisfied, while students who ate there only "occasionally" or "never" would be classified as dissatisfied).

The instrument also does not provide any direct indicators of perceived quality of programs or services.

CIRP, 1981 Student Information Form: This instrument measures information regarding background characteristics, career aspirations, and attitudes toward a variety of social issues. The instrument is not a measure of student satisfaction. The items do not deal directly with the institution being attended, nor do they specifically ask about satisfaction with programs and services at either the department or college level. Finally, there is no assessment of perceived program quality. Thus, this instrument was judged totally inadequate for the purposes of this project.

NCHEMS, SOIS Surveys: This instrument provides questionnaires which allow information collection from five student groups: entering students, current continuing students, graduating students, former students who did not complete their programs of study, and recent alumni. In addition to the usual demographic information, each form assesses student goals (academic, career preparation, job or career improvement, social and cultural participation, personal development and enrichment) and, when applicable, perceptions of goal achievement.

For all but entering students, knowledge of, use of, and satisfaction or dissatisfaction with the following services are assessed:

- Admissions
- Registration
- Business office
- Academic advising
- Guidance, counseling, and testing
- Reading, writing, math, and study skills Improvement
- Tutoring
- Minority affairs
- College cultural programs
- Recreation and athletic programs
- Financial aid
- Student Employment
- Career planning
- Job placement
- Housing services
- Cafeteria
- Health services
- Library
- Child care
- Bookstore
- Parking
- Campus security
- Other

For each program/service students are given the following response categories: "I did not know about this service," "I knew about this service, but did not use it," "I used this service and was satisfied with it," "I used this service but was not satisfied with it." Thus, in this instrument satisfaction is measured directly.

The questionnaire for entering students provides information regarding students' expectations relative to fifteen variables including cost, college's reputation, course offerings, availability of financial aid, and identification with fellow students. Information relative to the student's previous attrition pattern is also sought. Alumni provide information regarding outcomes of licensing or certification exams and perceived quality of preparation for new jobs or advanced college work.

Though the instrument measures satisfaction, several problems exist. Only the former student form elicits a specific response regarding satisfaction/dissatisfaction with the quality of teaching and the learning environment. No form explores the specific reasons for dissatisfaction with services or teaching. No form allows measurement of satisfaction/dissatisfaction between colleges other than satisfaction/dissatisfaction with reading, writing, math, and

study-skills improvement. Since some colleges provide service courses for students from other colleges, information concerning student satisfaction with these prerequisite courses should prove valuable to the colleges involved. NCHEMS-College Board provide questionnaire analysis service using standardized analysis packages which they describe as "available on short notice." Any institution planning to use that service may add fifteen additional questions with response values ranging from 0-9. Some of the above-mentioned deficiencies could be alleviated through the addition of such locally generated questions. Using all forms available, longitudinal evaluation could be accomplished by matching responses with masterfile information.

Finally, the SOIS surveys do not include a direct assessment of perceived program quality.

ACT, Student Opinion Survey: This instrument covers three broad areas including background characteristics, college services and programs, and the general college environment. Background characteristics include age, race, class level, sex, marital status, reason for entering college, and related items. The services and programs section focuses on 23 broad program areas within the University such as academic advising, career planning, library facilities, food service, and parking. Students are asked to indicate whether they have used each service and how satisfied they are with it. Satisfaction is measured on a 5-point scale ranging from very satisfied to very dissatisfied. Finally, the generally college environment is tapped by questions in six topic areas including academic, admissions, rules and regulations, facilities, registration, and general. Within each topic area are several items aimed at different issues or areas of concern for students such as "testing/grading system" or "class size" in the academic area. Students indicate whether each area applies to them and rate the item on the same 5-point satisfaction scale used in the previous section.

The SOS questionnaire appears to present a valid methodology for assessing student satisfaction. The authors have been careful to design an instrument which takes into account both familiarity with the topic or program and provides the full range of potential levels of satisfaction without being overly complex. However, there are some problems which may influence the validity of the results. First, the format of the instrument seems to encourage a response set bias (i.e., marking the same response category for every item). Second, the survey done at UT last year resulted in a response rate of only about 40 percent (despite several follow-up efforts). This suggests that there is some problem in motivating students to complete the information and may also suggest that the information which is received does not represent a very complete picture of student satisfaction. Finally, from a program planning perspective, particularly at the department level, the items used in the survey are much too broad. Analysis of the responses may point to general problem areas at the University level, but the results provide little basis for designing policy changes at the University level or providing useful information to departments or colleges. At best, the SOS survey is a broad gauge of student satisfactions and dissatisfactions. For the purposes of the Kellogg Student Outcomes Project, more detailed information on specific programs would have to be collected for department and program use (which could be accomplished with the addition of extra questions).

In its present form, the SOS instrument does not provide information on program quality or perceived quality independent of the measure of satisfaction. To the extent that satisfaction is a consequence of perceiving high quality, data do give an indirect assessment of program quality. However, it is easy to imagine a student being satisfied (or dissatisfied) with a program without having given much thought to assessing the quality of the program.

Hills and Friday, UTK Black Graduate Alumni Survey: This instrument is designed to gather information on Black students who have received post graduate degrees from UTK. Items obtain information on background characteristics, current job or school status, and satisfaction with a large variety of programs, services, and characteristics of the University of Tennessee. This instrument has several innovative features which appear useful for the Student Outcomes project.

First, the instrument attempts to measure both satisfaction with a specific program or service and the importance of that program or service in an overall evaluation of the University. Second, the instrument measures expected level of satisfaction with specific programs before entering UT (through a retrospective question), and actual satisfaction with the program after leaving. Third, the instrument attempts to measure program quality at several points.

Although the instrument would require revisions for use with graduate students, and probably would require some type of validation studies, it does provide a useful alternative to more simplistic estimates of program satisfaction. The major drawbacks of the instrument are that it is complex (and thus may be hard to understand for many undergraduates) and it does not assess why individuals are satisfied or dissatisfied.

Summary of Instrument Evaluations: With regard to the objectives of the Kellogg Student Outcomes project, the review by task force members suggests a number of important points. First, instruments differ greatly in the types of information gathered, but three do provide fairly direct assessments of student satisfaction with programs/services. (They are SOIS, SOS, and UTK Black Graduate Alumni Survey). Second, none of the instruments provides very detailed measures of satisfaction at the department or program level, though the three which measure satisfaction directly provide useful information regarding satisfaction at the University level. Thus, as discussed in the next

section, questions will have to be designed to gather information useful to department and program heads. Third, only the UTK Black Graduate Alumni Survey attempts to assess perceived program quality in addition to satisfaction/dissatisfaction. If the ultimate goal of the Student Outcomes program is to gather information useful to improving program quality as well as increasing student satisfaction, it will be important to design an instrument which taps both concerns.

It should also be noted that the review leaves us no closer to an understanding of what constitutes satisfaction, only a way to determine whether respondents feel satisfied or dissatisfied with a particular program. None of the instruments systematically measures why individuals feel satisfied or dissatisfied. Developing a framework for explaining why students are satisfied/dissatisfied must be preceded by a clear definition of what satisfaction is. Thus, defining satisfaction should be an important objective in refining the measuring instrument.

IV. Recommendations for Measuring Student Satisfaction at UTK

This section summarizes the recommendations of the committee regarding the measurement of student satisfaction. Two issues are addressed in this discussion: instrument selection and design, and methodological design.

Instrument Selection and Design. Comparison of the relative strengths and weaknesses of five existing measures of student satisfaction led task force members to conclude that the ACT "Student Opinion Survey" (SOS), which already has been used twice (Spring 1980 and Spring 1981) at UTK, is more likely than any other currently available standardized instrument to provide the kind of general information about student satisfaction that can be used in program assessment and improvement at UTK. The SOS (see Appendix A)

utilizes an attractive, readable format; it measures student satisfaction directly; it provides a measure of the extent of usage, as well as level of satisfaction, for 23 broad program/service areas; and finally, it includes a set of more specific questions designed to assess satisfaction with each of six aspects of the University environment. It costs approximately $7 per student sampled for ACT to administer and score the SOS and to provide a technical report of findings.

While the ACT SOS can provide a measure of student satisfaction on a University-wide basis, the information it yields is not sufficiently specific for use by deans or department heads in assessing their own programs and services. Accordingly, task force members developed, in consultation with a sample of department heads, a set of questions that could provide information specific enough for unit level evaluation. These items could be used in a form suitable for enrolled students and a form for recent graduates. A preliminary set of questions, with a sample response format, appears in Appendix B as the "Unit Level Survey of Student Satisfaction with Programs and Services." As indicated below, further development of this instrument, including an extensive pilot test will be required in order to evaluate its content and format.

Finally, since the task force views the evaluation of teaching as an important component of the information concerning student satisfaction to which deans and department heads must have access in order to assess the totality of the academic experience for students, the members recommend that instruments for the evaluation of teaching that have been developed by departments or obtained from the Learning Research Center be used within each unit.

The ACT SOS, the "Unit Level Survey," and instruments for the evaluation of teaching have similar purposes and thus contain many similar items. If any combination of these instruments is to be administered to a given sample of students, forms of each should be altered to minimize duplication of content.

Methodological Design. The ACT SOS should be administered at least every other year to representative samples of (1) enrolled students and (2) recent graduates of UTK. The resulting information should be reviewed by an appropriate body such as the University-wide Instructional Evaluation Committee. Following comparison of current data with that obtained in previous administrations of the SOS, and perhaps some follow-up interviewing to increase understanding of certain responses, the oversight group should issue a report on the findings to deans and department heads, including recommendations for program improvements which seem warranted.

In order to field test the "Unit Level Survey" and determine appropriate sampling methodologies for programs in the variety of disciplines represented at UTK, a pilot testing phase is recommended.

Approximately 10 units interested in participation should be selected to field test the "Unit Level Survey" in classes within the unit. Each college or department must, of course, determine its own method of sampling students, but the following methodological considerations are suggested.

A. Because students' motivation may be related to their purposes in taking courses it may be useful for the unit to differentiate the responses of several types of students, i.e.,

   .majors,

   .non-majors who are taking a course within the program of the given unit because that course is required in their own program, and

   .non-majors taking a course as an elective.

B. Keeping in mind the different purposes for which students are taking courses, a representative sample of courses in which the "Unit Level Survey" will be administered should include service courses as well as those likely to include a high percentage of majors. A sample of approximately 300 students, or all students

if less than 300, should be drawn. Students at the four classification levels -- freshman, sophomore, junior, and senior -- should be sampled as nearly as possible in proportion to their numbers in the population of students enrolled in the unit's courses.

C. The "Unit Level Survey" could be given at the same time, and to the same students, as is the evaluation-of-teaching instrument selected for use by each instructor.

A group of faculty with interests in curriculum development, program evaluation, measurement, and survey design and analysis should be established to oversee the pilot test of the "Unit Level Survey." This group should approve a response format for the instrument, select the 10 pilot test units and make suggestions for improving proposed course sampling methodologies in the various units, and develop procedures for analyzing the data and reporting it to unit administrators and faculty.

The "Unit Level Survey" should be given to a representative sample of enrolled students at least every other year, and to a sample of recent graduates (out of school 1 to 3 years) of each unit at least once every four years. The information thus obtained could be used by deans and department heads to suggest the following:

a) changes in curriculum at the course level or at the program level;

b) areas for professional development of faculty;

c) adjustments in testing/grading procedures;

d) adjustments in class sizes;

e) the addition of, or changes in, field experiences such as practica, internships and apprenticeships;

f) changes in advising procedures;

g) improvements in classroom or laboratory facilities and/or equipment.

DIRECTIONS. The information you supply on this questionnaire will be kept completely confidential. However, if any item requests information that you do not wish to provide, please feel free to omit it. Your Social Security number is requested for research purposes only and will not be listed on any report.

Please use a soft (No. 1 or 2) lead pencil to fill in the oval indicating your response. DO NOT use a ball-point pen, nylon-tip or felt-tip pen, fountain pen, marker, or colored pencil. Some items may not be applicable to you or to this college. If this is the case, skip the item or mark the "Does Not Apply" option. If you wish to change your response to an item, erase your first mark completely and then blacken the correct oval. Select only ONE response to each item.

SECTION I—BACKGROUND INFORMATION

Begin by writing your Social Security number in the large boxes at the top of Block A. Then, in the column below each box, blacken the appropriate oval. Complete the remaining blocks by blackening the single most appropriate oval in each case.

A SOCIAL SECURITY NUMBER (Identification Number)

B AGE

- 5 18 or Under
- 18 19
- 22 20
- 21 21
- 10 22
- 12 23 to 25
- 6 26 to 29
- 4 30 to 39
- 0 40 to 61
- 0 62 or Over

C RACIAL/ETHNIC GROUP

- 6 Afro-American/Black
- 0 American Indian or Alaskan Native
- 71 Caucasian-American White
- 0 Mexican American Chicano
- 1 Asian American, Oriental or Pacific Islander
- 6 Puerto Rican, Cuban, or Other Hispanic Origin
- 0 Other
- 3 Prefer Not to Respond

D INDICATE YOUR CLASS LEVEL AT THIS COLLEGE

- 7 Freshman
- 30 Sophomore
- 33 Junior
- 33 Senior
- 5 Graduate or Professional Student
- 2 Special Student
- 1 Other Unclassified
- 0 Does Not Apply to This College

E FOR WHAT PURPOSE DID YOU ENTER THIS COLLEGE? (Select Only One)

- 1 No Definite Purpose in Mind
- 1 To Take a Few Job Related Courses
- 1 To Take a Few Courses for Self Improvement
- 1 To Take Courses Necessary for Transferring to Another College
- 1 To Obtain or Maintain a Certification
- 6 To Complete a Vocational Technical Program
- 1 To Obtain an Associate Degree
- 58 To Obtain a Bachelor's Degree
- 3 To Obtain a Master's Degree
- 1 To Obtain a Doctorate or a Professional Degree

F SEX

- 51 Male
- 49 Female

G MARITAL STATUS

- 81 Unmarried (Including Single, Divorced, and Widowed)
- 18 Married
- 0 Separated
- 1 Prefer Not to Respond

H INDICATE THE NUMBER OF HOURS PER WEEK YOU ARE CURRENTLY EMPLOYED

- 13 0 or Only Occasional Jobs
- 7 1 to 10
- 15 11 to 20
- 10 21 to 30
- 7 31 to 40
- 5 Over 40

I WHAT IS YOUR CURRENT ENROLLMENT STATUS AT THIS COLLEGE?

- 90 Full-Time Student
- 10 Part-Time Student

J WHAT TYPE OF TUITION DO YOU PAY AT THIS COLLEGE?

- 88 In-State Tuition
- 12 Out-of-State Tuition
- 0 Does Not Apply to This College

K WHAT IS YOUR RESIDENCE CLASSIFICATION AT THIS COLLEGE?

- 86 In-State Student
- 11 Out-of-State Student
- 1 International Student (Not U.S. Citizen)

L WHAT TYPE OF SCHOOL DID YOU ATTEND JUST PRIOR TO ENTERING THIS COLLEGE?

- 71 High School
- 2 Vocational or Technical School
- 4 Junior College
- 3 4-year College or University
- 0 Graduate/Professional School
- 3 Other

111

M INDICATE YOUR CURRENT COLLEGE RESIDENCE

- 24 College Residence Hall
- 3 Fraternity or Sorority House
- 1 College Owned Student Housing
- 52 Off-Campus Room or Apartment
- 13 Home of Parent or Relative
- 1 Own Home
- 2 Other

N DO YOU RECEIVE ANY TYPE OF FEDERAL, STATE, OR COLLEGE-SPONSORED STUDENT FINANCIAL AID? (Scholarships, Grants, Work-Study, etc.)

- 43 Yes
- 57 No

USING THE LIST OF COLLEGE MAJORS AND OCCUPATIONAL CHOICES INCLUDED WITH THIS QUESTIONNAIRE, PLEASE SELECT THE THREE DIGIT CODES FOR YOUR COLLEGE MAJOR AND YOUR OCCUPATIONAL CHOICE. WRITE THESE CODES IN THE BOXES AT THE TOP OF BLOCKS O AND P, AND BLACKEN THE APPROPRIATE OVAL IN THE COLUMN BELOW EACH BOX. (IF YOU HAVE MORE THAN ONE MAJOR, SELECT THE ONE CODE THAT BEST DESCRIBES YOUR EDUCATIONAL PROGRAM.)

O INDICATE YOUR COLLEGE MAJOR

P INDICATE YOUR OCCUPATIONAL CHOICE

112

[illegible] is not [illegible]ed at [illegible] college [illegible] "Not Available [illegible] this College" and [illegible] part [illegible] Have used [illegible] service

DO NOT TEAR OR STAPLE THIS FORM

PART A: USAGE — COMPLETE PART B ONLY IF YOU HAVE USED THE SERVICE → PART B: LEVEL OF SATISFACTION

NOT AVAILABLE AT THIS COLLEGE	I HAVE NOT USED THIS SERVICE	I HAVE USED THIS SERVICE	COLLEGE SERVICE OR PROGRAM	VERY SATISFIED	SATISFIED	NEUTRAL	DISSATISFIED	VERY DISSATISFIED
0	13	87	1 Academic advising services	9	41	26	18	6
2	74	24	2. Personal counseling services	12	46	23	15	5
0	80	20	3 Career planning services	13	44	29	7	7
0	82	19	4 Job placement services	21	34	24	14	4
0	33	67	5 Recreational and intramural programs and services	39	53	6	1	1
0	2	98	6 Library facilities and services	33	54	4	7	2
0	39	61	7 Student health services	24	48	15	8	5
1	86	14	8 Student health insurance program	16	35	30	14	5
1	86	13	9 College-sponsored tutorial services	6	61	19	11	3
0	53	47	10 Financial aid services	22	45	12	13	8
0	74	26	11 Student employment services	20	32	25	18	4
0	45	55	12 Residence hall services and programs	17	43	25	9	6
0	19	81	13 Food services	10	42	25	18	5
1	39	61	14 College-sponsored social activities	17	59	18	5	2
0	48	52	15 Cultural programs	32	55	9	3	1
0	29	71	16 College orientation program	28	44	19	7	2
1	92	7	17 Credit-by-examination program (PEP, CLEP, etc.)	33	39	22	6	6
0	86	14	18 Honors programs	31	55	8	3	0
0	52	48	19 Computer services	9	46	20	18	8
7	58	35	20 College mass transit services	7	42	29	13	9
0	13	87	21 P[illegible]ng facilities and services	0	6	8	34	52
1	94	5	22 Veterans services	0	68	23	8	0
7	92	1	23 Day care services	0	0	0	0	0

MAKE NO STRAY MARKS ON THIS FORM

SECTION III—COLLEGE ENVIRONMENT

Please blacken the oval indicating your level of satisfaction with each of the following aspects of this college. If any item is not applicable to you or to this college, fill in the oval in the "Does Not Apply" column and proceed to the next item. Please respond to each item by choosing only one of the six alternatives

		LEVEL OF SATISFACTION					
		DOES NOT APPLY	VERY SATISFIED	SATISFIED	NEUTRAL	DISSATISFIED	VERY DISSATISFIED
ACADEMIC	1 Testing/grading system	7	61	21	11	0	0
	2 Course content in your major field	15	54	18	6	0	1
	3 Instruction in your major field	14	55	20	10	0	0
	4 Out-of class availability of your instructors	14	50	25	11	1	0
	5 Attitude of the faculty toward students	13	45	27	12	3	0
	6 Variety of courses offered by this college	31	56	8	5	0	0
	7 Class size relative to the type of course	12	51	22	13	2	0
	8 Flexibility to design your own program of study	12	43	24	14	3	4
	9 Availability of your advisor	16	37	27	11	7	2
	10 Value of the information provided by your advisor	14	31	25	17	10	3
	11 Preparation you are receiving for your future occupation	11	54	20	9	3	2
ADMISSIONS	12 General admissions procedures	7	53	26	11	3	0
	13 Availability of financial aid information prior to enrolling	6	37	24	13	6	14
	14 Accuracy of college information you received before enrolling	9	52	24	10	3	2
	15 College Catalog/ admissions publications	21	62	12	3	1	1
RULES & REGULATIONS	16 Student voice in college policies	3	21	11	22	8	6
	17 Rules governing student conduct at this college	6	31	30	10	2	5
	18 Residence hall rules and regulations	2	18	18	22	10	30
	19 Academic probation and suspension policies	3	32	40	2	1	22
	20 Purposes for which student activity fees are used	4	33	22	36	21	2
	21 Personal security/ safety at this campus	1	46	25	16	4	2

		LEVEL OF SATISFACTION					
		DOES NOT APPLY	VERY SATISFIED	SATISFIED	NEUTRAL	DISSATISFIED	VERY DISSATISFIED
FACILITIES	22 Classroom facilities	1	62	23	7	2	0
	23 Laboratory facilities	1	48	24	4	2	16
	24 Athletic facilities	26	46	15	2	0	10
	25 Study areas	11	62	11	10	4	1
	26 Student union	5	27	31	5	1	32
	27 Campus bookstore	21	61	10	7	2	0
	28 Availability of student housing	3	29	24	15	7	21
	29 General condition of buildings and grounds	15	64	16	5	0	1
REGISTRATION	30 General registration procedures	5	47	19	21	7	0
	31 Availability of the courses you want at times you can take them	5	30	16	31	16	2
	32 Academic calendar for this college	4	56	23	9	3	0
	33 Billing and fee payment procedures	6	65	17	9	3	0
GENERAL	34 Concern for you as an individual	11	17	38	27	11	3
	35 Attitude of college nonteaching staff toward students	4	33	31	15	6	5
	36 Racial harmony at this college	11	52	23	8	3	3
	37 Opportunities for student employment	5	33	30	11	1	21
	38 Opportunities for personal involvement in campus activities	12	46	25	6	2	9
	39 Student government	11	42	24	17	7	4
	40 Religious activities and programs	7	54	24	4	1	10
	41 Campus media (student news paper, campus radio, etc.)	14	53	16	11	3	3
	42 This college in general	15	63	10	6	1	0

UNIT LEVEL SURVEY
OF
STUDENT SATISFACTION WITH PROGRAMS AND SERVICES

Course Being Evaluated _____

Your classification: Freshman Sophomore Junior Senior Graduate

Are you a major in this department (or college)? Yes ___ No ___

Is this course required for your program of study? Yes ___ No ___

Are you taking this course as an elective? Yes ___ No ___

PROGRAMS/SERVICES

RATINGS

	How satisfied are you with this program/service?					How important is this program/service in your overall evaluation of your experience at UTK?				
Quality of Instruction	Very Dis.	Dis.	Neutral or No Opin.	Sat.	Very Sat.	Very Unimp.	Unimp.	Neither	Imp.	Very Imp.
1. Course content (overall)										
a. Comprehensiveness of course content										
b. Relevance of content for my needs										
c. Extent to which content is current, up-to-date										
d. Extent to which content is repetitive of work I've done in other courses in this unit										
2. Quality of teaching in this course										
3. Appropriateness of the testing/grading system in this course										
4. Appropriateness of the size (number of students) of this class										
5. Value of this course in preparing me for employment or for further study in this academic area										
6. Availability of the course instructor(s) to help me outside class time										
7. Willingness of the course instructor(s) to help me understand course content										
8. Fairness (impartiality) of the instructor(s)										
9. Instructor interest in students as individuals										

Quality of Facilities or Services	Very Dis.	Dis.	Neutral or No Opin.	Sat.	Very Sat.	Very Unimp.	Unimp.	Neither	Imp.	Very Imp.
1. Adequacy of classroom facilities for this course										
2. Adequacy of laboratory/studio/clinical facilities for this course (if applicable)										
3. Adequacy of equipment available for use in laboratory/studio/clinic (if applicable)										
4. Adequacy of audio-visual aids used in this course (if applicable)										
5. Adequacy of the library collection related to this course										
6. Quality of bookstore service in providing text and supplementary materials for this course										

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* * * * *

If you are a major in the department/college in which this course is offered, please respond to the following additional items:

Quality of Instruction	Very Dis.	Dis.	Neutral or No Opin.	Sat.	Very Sat.	Very Unimp.	Unimp.	Neither	Imp.	Very Imp.
1. Adequacy of preparation provided by lower division (1000 and 2000 level) courses for upper division (3000 and 4000 level) courses in your major										
2. Lack of repetition among courses in this unit										
3. Consistency of testing/grading standards across courses in the unit										
4. Consistency of testing/grading standards in this unit as compared with standards in other units across the University										
5. Quality of courses in this unit for providing a well-rounded education										
6. Quality of courses in this unit for preparing me for employment or for further study										
7. Extent of my involvement in faculty research or other scholarly endeavor										
8. Availability of the courses I need to take in this unit										
9. Logic of course sequencing and curriculum organization										
10. Variety of courses offered in my major										
11. Availability of the courses in my major										
12. Availability of optional courses in my program										

13. Are seminars or colloquia offered for undergraduates in this area? Yes ___ No ___

    If not, would you like to have seminars or colloquia? Yes ___ No ___

14. Is a practicum, internship, or field experience provided in your major? Yes ___ No ___

    If so, how satisfied are you with the experience? Very Dis. ___ Dis. ___ Neutral ___ Sat. ___ Very Sat. ___

    If not, would you like to engage in a field experience as part of your program? Yes ___ No ___

15. Is a comprehensive or licensing exam required of you during or following your senior year in your major? Yes___ No___

    If so, how satisfied are you with the preparation for this exam which is provided by this unit? Very Dis. ___ Dis. ___ Neutral ___ Sat. ___ Very Sat. ___

Quality of Faculty/Staff Assistance	Very Dis.	Dis.	Neutral or No Opin.	Sat.	Very Sat.	Very Unimp.	Unimp.	Neutral	Imp.	Very Imp.
1. Quality of academic advising provided by this unit (overall)										
a. Availability of my advisor										
b. Willingness of my advisor to provide the help I need										
c. Quality of assistance my advisor has provided concerning my degree or program plan										
d. Quantity of assistance my advisor has provided										
e. Consistency of the information provided by different advisors in this unit										
2. Quality of printed information concerning programs offered by this unit										
3. Helpfulness of unit staff in providing the information or assistance I need										
4. Adequacy with which complaints are handled by faculty/staff in this unit										
5. Quality of special events sponsored by this unit (e.g., guest speakers, exhibits, field trips, etc.)										

APPENDIX 6

Pilot Project

Request for Proposals

OFFICE OF THE CHANCELLOR

October 7, 1982

Dean William Coffield
212 Claxton Education Building
Campus - 3400

Dear Bill:

On August 23 you and Tom and I discussed several ideas that might be developed into pilot projects with support from Kellogg funds. Specifically, we covered the following possibilities:

1. Giving the advanced National Teacher Exam in elementary education to a sample of seniors majoring in elementary education.

2. Selecting or developing a comprehensive exam in recreation, dance, health and safety, distributive education, industrial training, or one of the other fields for which the NTE is not appropriate.

3. Conducting a survey of enrolled students and/or alumni in a given department.

4. Conducting exit interviews with graduating seniors.

In the weeks since we talked other ideas for acquiring and/or using student outcomes information may have occurred to you.

I am enclosing copies of proposal guidelines and an application form which will assist us in the process of awarding grants for pilot projects in the second phase of the Kellogg Student Outcomes Project. Please use this form in developing the project proposal you would like to pursue.

Given available resources and needs I can foresee in connection with any one of these project ideas, I would suggest that you consider a request for approximately $500 of Kellogg funds. In actuality the need for funds may turn out to be slightly more or less than that. Since the application review process will focus on alloca on of available resources rather than selection among competing proposals, please develop the best project that can be conceived, along with the needed budget, then if we find that there is a need to reconsider the amount allocated, we will do that. I will be glad to discuss with you any details of the application or the review process.

Please send the application to me by November 5. A committee will review the proposal and communicate with the contact person by early December concerning the request for resources.

Projects may begin as early as January 1, but should be completed no later than September 1, 1983. I look forward to receiving your proposal.

Sincerely,

Trudy W. Banta
Professor
Special Assistant to the Chancellor

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Enclosures

cc: Dr. Thomas George

GUIDELINES FOR PROPOSALS DESIGNED TO INCREASE AND IMPROVE USE OF INFORMATION DERIVED FROM MEASURES OF STUDENT ACHIEVEMENT IN THE MAJOR FIELD AND/OR STUDENT ASSESSMENT OF THE QUALITY OF PROGRAMS/SERVICES

Through the Kellogg Student Outcomes Project small grants of $350 to $1,500 each will be made to colleges and departments submitting proposals for projects designed to increase and improve the use of student outcomes information of one or both of the following types:

(1) student achievement in the major field

(2) student assessment of the quality of programs and services

Student Achievement in the Major Field

Student achievement in the major field may be measured using a standardized examination such as the National Teacher Exam, a licensing exam, or a GRE advanced test. Though probably more costly, difficult, and time-consuming, a unit may elect to design its own comprehensive field exam. In addition, one or more of the following methods may be employed:

1) Evaluation by faculty of a comprehensive student achievement

2) Evaluation of a comprehensive student achievement by an external reviewer

3) End-of-program assessment by seniors, reporting perceptions of their own achievement

4) Retrospective assessment of their achievement by alumni

5) Assessment by employers of the competencies of alumni one or several years after graduation

A unit proposing a pilot project in this outcome area might request one or more of the following types of assistance from the grant program:

1) guidance in identifying and/or selecting an appropriate field exam

2) funds to purchase a standardized exam for administration to a sample of advanced students

3) guidance in developing a measurement instrument

4) assistance in obtaining from licensing or accrediting agencies additional information about student scores which would enhance the usefulness of these data in program assessment

5) guidance and/or funding for additional analyses of existing student achievement data

6) guidance in making additional applications to program assessment and improvement of student achievement data collected previously

Student Assessments of the Quality of Programs/Services

In this outcome area a unit may propose to construct or select for use a new instrument, improve the design and/or administration of an instrument used previously, or improve the application to program assessment and improvement of information derived from an instrument used previously. One or more of the following types of measures may be involved:

1) assessment by students (majors, non-majors taking required courses, non-majors taking electives, in the unit) of the quality of programs and services at the departmental or college level (for example, instruction, advising, internships, course sequencing).

2) assessment by alumni of the quality of programs/services at the departmental or college level.

In this connection a unit may request one or more of the following types of assistance:

1) guidance in selecting or designing a questionnaire or employing an appropriate sampling methodology

2) funds to duplicate a questionnaire, mail it to a sample, and follow up to ensure an adequate return

3) guidance in analyzing, interpreting, and reporting the results of student survey data and in applying the findings in program assessment and improvement

The Proposal

As stated previously, a proposal may suggest methods of increasing and improving the use of information derived from (1) measures of student achievement in the major field, OR (2) student assessments of the quality of programs/services, OR a combination of 1 and 2.

For EACH AREA (1 or 2 above) addressed in the proposal, brief responses to the following items should be included:

1) What kinds of student data are already being collected by the unit?

2) How are these data currently being applied in program assessment and decision-making?

3) What changes(s) or improvement(s) in data gathering methodology or in application strategies are proposed? Specify objectives to be accomplished.

4) How will the proposed changes increase and improve the use made of this kind of information in combination with other kinds of information in program assessment and decision-making?

Student outcomes information can be applied or used to provide evidence of program quality for the following purposes: (a) communicating with alumni and friends of the University, students and their parents, professional colleagues; (b) preparing for accreditation reviews; (c) strategic planning; (d) preparing for the comprehensive program review process; (e) responding to the requirements of the THEC Instructional Evaluation Schedule.

More specifically, outcomes information can be used by a unit to suggest:

1) Changes in curriculum at the course level, i.e., course content updated or given new focus

2) Changes in curriculum at the program level, i.e., courses or content areas added or deleted

3) Areas for professional development of faculty

4) Addition of, or changes in, field experiences

5) Addition of, or changes in, seminars, colloquia, special events

6) Changes in advising procedures

7) Improvements in classroom or laboratory facilities and/or equipment

8) Additions to library collections

9) Improvements in campus-wide student services

Finally, the proposal should contain an estimate of the quantity (time and/or dollar value) of the following types of resources that are needed to accomplish the project objectives:

1) Technical assistance (Faculty/administrator time and/or graduate assistant time -- specify whether this expertise can be obtained in the unit or must be obtained externally

2) Financial assistance for instrument purchase and/or administration (Include costs of postage, telephone follow-up, or monitoring of exams.)

3) Data processing assistance (Specify type(s) and quantities of data to be processed.)

APPLICATION

Kellogg Student Outcomes Project

Name of Unit _____

Contact Person _____ Campus Address _____ Telephone _____

Please supply brief responses (one or two paragraphs) to the following items. Applica may cover area 1 or area 2 below, or both.

1. Student Achievement in the Major Field

   a. What kinds of information on student achievement in the major field does the unit already have?

   b. How is this information currently being applied by the unit to assess and improve the quality of its programs?

   c. What change(s) in information-gathering or application strategies (a or b above) do you propose? Briefly outline the strategy including objectives to be accomplished; instruments you plan to use; characteristics of the student sample; and methods of data collection, analysis, and interpretation to be used.

2. Student Assessments of the Quality of Programs/Services

   a. What kinds of information does the unit already have that could be classified as student assessment of the quality of programs/services?

   b. How is this information currently being applied by the unit to assess and improve the quality of its programs/services?

   c. What change(s) in information-gathering or application strategies (a or b above) do you propose? Briefly outline the strategy including instruments; student sample; and methods of data collection, analysis, and interpretation to be made.

3. How will the change(s) proposed in 1c and/or 2c above increase and improve the use made of these kinds of information in combination with other kinds of information in the assessment and improvement of program quality? In this response please outline a 3-5 year plan for using student outcomes information of the type specified if funding were available to continue the methodology you have proposed.

4. Proposed starting date for project _____ Ending date _____

5. Type(s) of Assistance Requested - Describe briefly the resouces to be used in each applicable category and estimate (1) the amount of Kellogg funds needed to provide those resources, and (2) the cost of the in-kind College contribution that is anticipated (principally time of faculty and administrators that will be involved.

Category of Assistance	Kellogg Funds	College Funds	Total
a. Technical assistance (Estimate the cost of time for faculty, administrators, graduate assistants and/or outside consultants to provide assistance with instrument selection or design; survey work, data analysis, interpretation, etc.)			
b. Supplies, postage, telephone			
c. Travel			
d. Computer time			
e. Other			

Please return completed Application by November 5, 1982 to:

Dr. Trudy W. Banta
541 Andy Holt Tower
Campus - 0150

APPENDIX 7

UTK Testing Requirement

OFFICE OF THE CHANCELLOR

THE UNIVERSITY OF TENNESSEE, KNOXVILLE/ 527 ANDY HOLT TOWER/ KNOXVILLE, TENNESSEE 37996-0550

MEMORANDUM

TO: Dr. John Prados

FROM: Jack E. Reese
Chancellor

DATE: January 24, 1983

RE: Testing Requirement for UTK Baccalaureate

The UTK Faculty Senate, following the recommendation of our Instructional Evaluation Committee through the Undergraduate Council, has voted to require, beginning with Spring 1983, that every candidate for the baccalaureate must participate in the UTK instructional evaluation program, by taking either the ACT-COMP test, or a test of competence in a specific major field of study, or by completing some other instrument designed to determine the perceptions and reactions of seniors to the course of study they have pursued or to their experience at the University.

These are activities required not only by the Instructional Evaluation Schedule of the Tennessee Higher Education Commission, but by our own commitment to the improvement of teaching and learning on this campus. We believe that graduating students, who have enjoyed a considerable subsidy from the people of the state of Tennessee in covering their educational expenses, will in the large be willing and in most cases eager to be a part of this extensive effort to improve the quality of the baccalaureate degree. We value their insights and perceptions now, as we will value their perceptions when they become loyal alumni over the years.

We will appreciate your bringing this request to the attention of the Board in February. I recommend that the Board consider the following Catalogue statement of the requirement:

> In order for the University to assess and improve its academic programs, periodic measurements of student perceptions and intellectual growth must be obtained. As a requirement for graduation every student shall participate in one or more evaluative procedures, which may include examinations in general education and/or the major field of study. The evaluative information obtained through testing is one of the means used to improve the quality of the educational experience for future generations of students.

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APPENDIX 8

Report

on

Student Satisfaction Survey

June 1983

Kent Van Liere
William Lyons

Report
on
Student Satisfaction Survey
June 1983
Kent Van Liere
William Lyons

OVERVIEW

The purpose of this report is to summarize findings of a study of student satisfaction with University programs and services. The study was conducted in the Spring quarter, 1983 and is based on a sample of full and part-time undergraduates at the University of Tennessee-Knoxville. Before summarizing the findings, a brief overview of the questionnaire and methodology are provided.

The questionnaire was designed to measure satisfaction with programs and services in three different areas. First, items were included in the survey which measure satisfaction with general University services and programs such as the library, health service and campus plays. With respect to each service, students were asked to indicate their frequency of use, reasons for nonuse, ratings of the quality of the service, and the importance of the service. Second, students evaluated services and programs in their major or intended major such as advising, availability of courses, and faculty-student interactions. Students unable to specify a major or intended major simply skipped this section. Third, students rated the quality and importance of various facets of their classroom experience. Students were asked to rate a specific class randomly chosen from the classes they were taking during Spring quarter.

In addition to tapping satisfaction at these different levels, the questionnaire also asked about overall satisfaction with the academic and social environment at UTK. Finally, a series of socio-demographic questions were included. This report summarizes the responses to these different groups of items. (A copy of the questionnaire is included in the Appendix).

The data were collected between April 25 and June 8, 1983. The responses in this study are based on a random sample of 1155 undergraduate students (full and part-time) enrolled in classes during Spring quarter. The sample was stratified by college. Since several colleges represent fairly small proportions of the total student population at UTK, a disproportionate sampling procedure was used to oversample small colleges. The following sample sizes were used in constructing the sample:

College of Agriculture	n=100
College of Architecture	n=100
College of Business	n=150
College of Communication	n=100
College of Education	n=100
College of Engineering	n=125
College of Home Economics	n=100
College of Liberal Arts	n=250
College of Nursing	n=100
Unclassified	n=30

In reporting the results for the Univeristy as a whole, the college samples were weighted to reflect their true proportions for the University.

The questionnaire was distributed through the mail. An initial mailing and two follow-ups were used to solicit responses. The first mailing included the questionnaire, a cover letter on Chancellor's office stationary, and a postage-paid return envelope. The second mailing was a postcard reminder. The third mailing included another copy of the quesitionnaire, a cover letter, and a return envelope. Of the

1155 students in the sample, 809 returned useable questionnaires for a response rate of 70.0 percent.

In addition to the general sample of University students, the study also included additional samples of majors and students in classes for five departments or programs which received a more indepth evaluation. Results from these five departmental studies are summarized in separate reports prepared for each department.

SUMMARY OF FINDINGS

The purpose of this section is to draw attention to major findings which appear relevant to the University's response to the THEC guidelines. The Appendix provides detailed tables summarizing the data on which conclusions are based. It is important to note that much of the specific information included in the tables will be of most interest to those managing the various programs and services evaluated.

Evaluation of General University Programs and Services: In discussing these services we will first discuss overall evaluations, then examine frequency of use and reasons for nonuse. Throughout this report ratings of quality are based on a four-point scale from excellent to poor. Services receiving the highest percentage of "excellent" or "good" ratings from students using the service included the main and undergraduate libraries, campus plays, films and concert series, and the University bookstore. For all of these services, over 70 percent provided excellent or good ratings.

Services which received a high proportion of "fair" or

"poor" ratings included career planning and placement, counseling center, writing lab, student employment service, health service, and computer services. For these services, over 40 percent of the respondents gave fair or poor evaluations of the quality of the service. Relative to the other services evaluated, the health service seems to have the most problems, as 17 percent of those using the service gave poor ratings. However it is important to note that 20 percent of the sample gave the health service an excellent rating, suggesting that the quality of service is, at worst, uneven.

In general, the evaluations reported above are relatively consistent across colleges, classification of students (freshman, etc.), and type of student based on low versus high G.P.A.

In interpreting the evaluation of various services, it is important to consider the extent of use by students and the reasons for nonuse. Among the services which received more positive evaluations, the libraries and the University bookstore were most frequently used. All respondents reported using the bookstore to some degree, only 1 percent reported never using the Undergraduate library, and 17 percent never use the main library. Two-thirds of the sample indicated that they took advantage of the campus plays, films, and concerts on at least a few occasions. Among the services receiving weaker ratings, the counseling center, the writing lab, the career planning and placement center, and student employment services were used infrequently by students. Three-fourths of the sample or more had never used these services.

Why weren't these services used more? For most services, students simply had no further need for the service. However, for three services--career planning and placement center, counseling center, and the writing lab--over 50 percent said they were not familiar with the service. Apparently there is a need for more information regarding these services among students. Also, 16 percent of the sample reported not using the health service more frequently because they had found the services to be of low quality. These results combined with results reported above suggest a need to improve the health service, or at least student impressions of this service.

A second set of general University services which do not involve frequent interaction with students such as admissions, student records, drop/add, and student scholarships was also evaluated. For these services student were asked to evaluate the quality of the service and to rate the clarity of procedures. Services receiving more than 70 percent excellent or good ratings were admissions, student records, and preregis.ration. Students also rated the procedures for these three services as clear or only somewhat confusing. Very few students, less than 10 percent, rated these services as poor. In contrast, several services received poor ratings by 20 percent or more of the sample. These included registration,, student loans, grants, and scholarships, the student conduct office, and drop/add procedures. Approximately one-third of the sample rated the procedures for these services as confusing. These ratings are based only on the responses of students who were familiar with the service.

Ratings of Programs and Services in the Major: The survey also included a set of items designed to measure student satisfaction with the programs and services in their major. Although this type of information will be most useful to department or program heads, a University-wide summary of the data are included in this report because it provides a general description of the state of these services in the University and can be used as a baseline for comparing department responses.

Students were asked to rate the quality of each service as well as indicating its importance to them. Students who could identify either a major or an intended major completed this section. Approximately 12 percent of the students were undecided about their major and skipped this section.

Seventeen services were included in the questionnaire. Services receiving the highest average ratings of quality included the following:

quality of instruction in upper division courses (average rating of 3.1)

willingness of the advisor to help (2.9)

quality of course for providing a general education (2.9)

Items with the lowest average ratings included:

quality of printed program information (2.6)

quality of special events (2.6)

quality of instruction in lower division courses in the major (2.6)

opportunities for interaction with faculty in the major (2.6)

practicum and internship experiences in the major (2.6)
availability of required course in the major (2.4)
availability of desired courses in the major (2.4)

In terms of importance to the student, the three most important services were: quality of courses in preparing the student for employment, quality of instruction in upper division courses in the major, and the availability of required courses for the major. Given the importance of this last item to students and its low quality rating, this area deserves more attention in reducing student dissatisfaction.

Interestingly, the quality ratings of many of these services do vary by college (see Table 12 in the Appendix). Thus it may be appropriate to work with the administrators in the various colleges to design programmatic and administrative changes to respond to weaknesses within colleges, rather than to initiate University-wide changes. Surprisingly, there was little difference in the ratings of the services provided in the major by students of different classification (i.e.,freshman, etc.) or by students of different grade point averages.

Ratings of the Quality of Facets of Classroom Experience: The survey also contained a set of items evaluating the classroom experience. This set of items was very similar to a standard class evaluation form. Rather than have students respond to these items generally, a specific class was randomly chosen from the list of classes a student was enrolled in Spring quarter and students were asked to evaluate this class (the name of the class was written on the questionnaire). Thus responses

to this set of questions should provide a fairly representive picture of student evaluation of classes across the university as a whole. Students were asked to evaluate both the quality of the service and its importance to them.

Items which received the highest average rating included the following:

instructor's knowledge of the subject matter (average rating of 3.6)

instructor's enthusiasm for teaching this class (3.3)

instructor's class preparation (3.2)

extent to which content is current (3.2)

overall quality of the instructor (3.2)

Items which received the lowest overall ratings included:

relevance of content for student needs (2.8)

clarity of course objectives (2.8)

conduciveness of climate for learning (2.8)

quality of classroom discussion (2.7)

accuracy of the catalog description of this course (2.7)

The most important facets of the classroom experience according to the student ratings of importance included: instructor's knowledge of the subject, instructor's helpfulness with problems, instructor's class preparation and presentations, and the fairness of testing and grading.

In contrast to the ratings of services in the major, there were few sizeable differences in the ratings of classroom experiences across colleges. Also there were few differences across students of different classifications or grade point averages.

We also asked students to indicate whether the course they were evaluating was taught by a graduate student or faculty member (they could also respond with not sure). A comparison of the differences in evaluations for faculty and graduate students shows that on most items faculty do have higher ratings than graduate students, but the differences are generally not very large for most items.

However, the largest differences occur on two important items. Faculty receive higher ratings on both enthusiasm for teaching the course and knowledge of the material.

Ratings of Overall Satisfaction with the University: The final set of items on student satisfaction involved general feelings of satisfaction with the University. The following summarizes responses to these questions;

In general how satisfied are you with your academic experience at the University of Tennessee?

very satisfied	19.5%
somewhat satisfied	52.2%
somewhat dissatisfied	23.0%
very dissatisfied	5.3%

In general how satisfied are you with your overall experience at the University of Tennessee?

very satisfied	28.7%
somewhat satisfied	57.7%
somewhat dissatisfied	12.5%
very dissatisfied	1.0%

The important point in these results is that there seems to be a good deal less satisfaction with the academic environment at UTK than with the overall environment.

TABLE 1

STUDENT USE OF GENERAL UNIVERSITY PROGRAMS AND SERVICES:
ALL STUDENTS

PROGRAM/SERVICE	Service was Used: FREQUENTLY	OCCASIONALLY	SELDOM	NEVER
Main Library	15%	38%	30%	17%
Undergraduate Library	48%	40%	11%	1%
Career Planning & Placement Center	3%	6%	15%	77%
Counseling Center	2%	4%	15%	79%
Recreation or Intramural Activity	26%	27%	20%	27%
Writing Lab	1%	2%	4%	93%
Student Employment Services	3%	9%	14%	74%
Health Services	7%	25%	28%	39%
Campus Plays	9%	25%	30%	37%
Campus Film Series	12%	32%	26%	30%
Campus Concert Series	10%	24%	27%	39%
Computer Services	13%	14%	14%	59%
University Bookstore	70%	27%	3%	0%

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TABLE 2

STUDENT USE OF GENERAL UNIVERSITY PROGRAMS AND SERVICES: MEANS BY COLLEGE

PROGRAM/SERVICE	Mean Responses[1] UNIVERSITY	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I
Main Library*	2.5	2.5	2.5	2.3	2.4	2.8	3.0	2.8	2.3	2.6
Undergraduate Library*	3.4	3.5	3.5	3.2	3.2	3.3	3.0	3.0	3.6	3.4
Career Planning & Placement Center*	1.4	1.3	1.4	1.4	1.5	1.4	1.2	1.1	1.5	1.2
Counseling Center*	1.3	1.3	1.5	1.3	1.1	1.2	1.2	1.3	1.1	1.2
Recreation or Intramural Activity*	2.5	2.4	2.7	2.9	2.7	2.2	2.6	2.4	2.4	2.4
Writing Lab	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.1
Student Employment Services	1.4	1.4	1.3	1.5	1.5	1.5	1.4	1.4	1.3	1.4
Health Services	2.0	2.0	2.0	2.2	2.0	2.2	2.0	2.4	2.0	2.1
Campus Plays*	2.1	2.2	1.9	1.9	1.8	2.2	2.0	2.0	2.0	2.5
Campus Film Series*	2.3	2.4	2.1	2.2	2.4	2.1	2.5	2.1	1.8	2.3
Campus Concert Series	2.1	2.2	1.9	2.1	1.8	2.2	2.0	1.9	2.0	2.1
Computer Services*	1.8	1.6	2.4	1.7	2.5	1.2	2.4	1.1	1.2	1.3
University Bookstore	3.7	3.7	3.6	3.6	3.7	3.7	3.7	3.8	3.7	3.7
N	809	170	118	68	86	72	62	73	65	83

[1] Higher means indicate greater use

* $P < .05$

TABLE 3

STUDENT USE OF GENERAL UNIVERSITY PROGRAMS AND SERVICES:
MEANS BY CLASS AND GRADE POINT AVERAGE

PROGRAM/SERVICE	Classification				Grade Point Average	
	FRESHMAN	SOPHOMORE	JUNIOR	SENIOR	GREATER THAN 3.0	LESS THAN 3.0
Main Library	2.1	2.3	2.6	2.9*	2.7	2.4*
Undergraduate Library	3.4	3.4	3.4	3.3	3.3	3.4
Career Planning & Placement Center	1.1	1.1	1.3	1.8*	1.4	1.3*
Counseling Center	1.4	1.3	1.3	1.2	1.2	1.3*
Recreation or Intramural Activity	2.5	2.6	2.5	2.5	2.4	2.6
Writing Lab	1.2	1.1	1.1	1.1	1.0	1.1*
Student Employment Services	1.3	1.5	1.4	1.4	1.4	1.4
Health Services	1.7	2.0	2.0	2.2*	1.9	2.0
Campus Plays	2.0	2.1	1.9	2.2	2.2	1.9*
Campus Film Series	2.1	2.3	2.2	2.3	2.4	2.1*
Campus Concert Series	1.9	2.1	2.1	2.1	2.1	2.0
Computer Services	1.4	1.9	1.9	2.1*	1.9	1.8
University Bookstore	3.6	3.7	3.6	3.7	3.7	3.6
N	171	190	187	237	344	462

[1] Higher means indicate greater use

* $p < .05$

TABLE 4

REASON FOR NOT USING SERVICE MORE[1]

SERVICE/PROGRAM	NO FURTHER NEED FOR SERVICE	NOT FAMILIAR WITH SERVICES	DID NOT HAVE NEEDED SERVICE	FOUND SERVICES TO BE LOW QUALITY
Main Library	82%	9%	6%	2%
Undergraduate Library	80%	5%	12%	4%
Career Planning & Placement Center	34%	53%	9%	4%
Counseling Center	36%	53%	6%	5%
Recreation or Intramural Activity	78%	16%	5%	1%
Writing Lab	38%	54%	7%	2%
Student Employment Services	52%	32%	11%	4%
Health Services	69%	9%	6%	16%
Campus Plays	78%	12%	8%	3%
Campus Film Series	77%	12%	8%	3%
Campus Concert Series	67%	12%	17%	4%
Computer Services	61%	29%	9%	2%
University Bookstore	88%	1%	5%	6%

N=809

[1] Percentages computed only for students using that service

TABLE 5

RATING OF QUALITY AND IMPORTANCE OF SERVICES[1]

SERVICE/PROGRAM	Rating				Importance[2]
	EXCELLENT	GOOD	FAIR	POOR	MEAN
Main Library	24%	48%	26%	3%	2.7
Undergraduate Library	25%	55%	18%	3%	2.8
Career Planning & Placement Center	16%	42%	31%	11%	2.2
Counseling Center	11%	40%	37%	12%	2.0
Recreation or Intramural Activity	18%	58%	22%	2%	1.7
Writing Lab	16%	22%	48%	13%	1.6
Student Employment Services	12%	36%	45%	7%	2.0
Health Services	20%	36%	28%	17%	2.3
Campus Plays	35%	48%	15%	2%	1.7
Campus Film Series	22%	54%	21%	4%	1.6
Campus Concert Series	25%	45%	27%	3%	1.6
Computer Services	12%	38%	39%	11%	2.2
University Bookstore	26%	52%	18%	4%	2.3

N=809

[1] Percentages computed only for students using that service

[2] Higher means indicate greater importance of that service to the student - Three point scale

TABLE 6

PERCEIVED QUALITY OF GENERAL UNIVERSITY PROGRAMS AND SERVICES: MEANS BY COLLEGE

PROGRAM/SERVICE	Mean Responses[1] UNIVERSITY	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I
[illegible] Library	2.9	2.9	3.1	2.9	3.0	2.9	2.8	3.0	2.8	2.8
Undergraduate Library*	3.0	2.9	3.1	3.0	3.0	3.0	2.7	3.0	3.3	2.9
Career Planning & Placement Center	2.6	2.5	2.8	2.6	2.8	2.7	2.3	2.9	2.6	2.4
Counseling Center	2.5	2.6	2.4	2.6	2.7	2.5	2.1	2.7	2.4	2.3
Recreation or Intramural Activity	2.9	2.9	2.9	3.1	2.9	3.1	2.9	3.2	3.0	2.6
Writing Lab	2.4	2.7	2.1	2.5	2.5	2.7	1.5	3.5	2.3	2.4
Student Employment Services	2.5	2.5	2.6	2.4	2.7	2.4	2.5	2.6	2.7	2.0
Health Services	2.6	2.5	2.8	2.5	2.6	2.4	2.5	2.5	2.8	2.5
Campus Plays	3.2	3.2	3.1	3.2	3.0	3.3	3.1	3.3	3.1	3.0
Campus Film Series	2.9	3.0	2.9	3.0	2.9	2.8	2.8	3.1	2.8	3.0
Campus Concert Series	2.9	3.0	2.8	3.0	2.7	2.8	2.9	3.0	2.9	2.7
Computer Services	2.5	2.5	2.5	2.7	2.6	2.3	2.6	2.4	2.5	2.4
University Bookstore	3.0	2.9	3.1	2.9	3.0	3.0	2.6	3.2	3.3	2.8
N	809	170	118	68	86	72	62	73	65	83

[1] Higher means indicate higher rating of service

* $p < .05$

TABLE 9

STUDENT RATINGS OF UNIVERSITY SERVICES:
MEANS BY COLLEGE

SERVICE	UNIVERSITY	Mean Responses[1] Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I
Admissions*	3.0	3.0	3.0	3.0	3.0	2.8	2.7	2.9	3.0	2.7
Registration	2.4	2.4	2.4	2.5	2.5	2.3	2.2	2.4	2.4	2.2
Student Records	2.9	2.8	2.9	3.0	3.1	2.8	2.8	2.9	3.0	2.8
Student Loans	2.3	2.4	2.2	2.6	2.4	2.3	2.2	2.2	2.3	2.2
Student Grants	2.3	2.4	2.2	2.3	2.4	2.3	2.1	2.2	2.3	2.1
Scholarships	2.5	2.4	2.4	2.6	2.5	2.8	2.0	2.3	2.5	2.5
Student Conduct Office	2.5	2.5	2.4	2.6	2.6	2.5	2.1	2.5	2.3	2.4
Treasurer's Office	2.5	2.4	2.6	2.6	2.8	2.5	2.4	2.6	2.6	2.6
Drop/Add Procedure	2.2	2.2	2.1	2.2	2.3	2.0	2.2	2.3	2.3	2.2
Preregistration	2.9	2.9	2.9	3.0	3.0	3.0	2.6	3.1	3.1	2.7
N	809	170	118	68	86	72	62	73	65	83

[1] Higher means indicate higher rating

* $P < .05$

TABLE 10

STUDENT RATINGS OF UNIVERSITY SERVICES:
MEANS BY CLASS AND GRADE POINT AVERAGE

	Mean Responses[1]					
	Classification				Grade Point Average	
SERVICE	FRESHMAN	SOPHOMORE	JUNIOR	SENIOR	GREATER THAN 3.0	LESS THAN 3.0
Admissions	3.0	2.9	2.9	3.0	2.9	3.0
Registration	2.5	2.3	2.4	2.3	2.4	2.4
Student Records	2.9	2.8	2.9	3.0	2.9	2.9
Student Loans	2.2	2.3	2.2	2.4	2.3	2.4
Student Grants	2.3	2.4	2.1	2.4	2.4	2.3
Scholarships	2.7	2.4	2.3	2.4	2.5	2.4
Student Conduct Office	2.5	2.6	2.4	2.4	2.4	2.5
Treasurer's Office	2.4	2.4	2.5	2.8	2.7	2.5
Drop/Add Procedure	2.3	2.0	2.1	2.2	2.1	2.2
Preregistration	3.0	2.8	3.0	3.0	3.0	2.9
N	171	190	187	237	344	462

[1] Higher means indicate higher rating

TABLE 7

PERCEIVED QUALITY OF GENERAL UNIVERSITY PROGRAMS AND SERVICES: MEANS BY CLASS AND GRADE POINT AVERAGE

	Mean Responses[1]					
	Classification				Grade Point Average	
PROGRAM/SERVICE	FRESHMAN	SOPHOMORE	JUNIOR	SENIOR	GREATER THAN 3.0	LESS THAN 3.0
Main Library	3.0	2.8	2.9	3.0	2.9	2.9
Undergraduate Library	3.2	3.0	2.9	2.9*	3.0	3.0
Career Planning & Placement Center	2.6	2.4	2.8	2.7	2.8	2.5*
Counseling Center	2.7	2.3	2.7	2.4	2.6	2.5
Recreation or Intramural Activity	3.0	2.9	2.9	2.9	2.9	2.9
Writing Lab	2.4	2.4	2.8	2.3	2.3	2.5
Student Employment Services	2.7	2.5	2.5	2.4	2.6	2.5
Health Services	2.9	2.5	2.5	2.6*	2.6	2.6
Campus Plays	3.2	3.1	3.1	3.2	3.3	3.1*
Campus Film Series	3.0	2.9	2.8	3.0	3.1	2.8*
Campus Concert Series	2.9	3.0	2.8	2.9	3.0	2.8*
Computer Services	2.6	2.5	2.5	2.5	2.5	2.6
University Bookstore	3.1	3.0	3.0	2.9*	3.0	3.0
	171	190	187	237	344	462

[1] Higher means indicate higher rating of service

* $< .05$

TABLE 8

STUDENT RATINGS[1] OF UNIVERSITY SERVICES:
QUALITY AND CLARITY OF PROCEDURES

	Rating of Service				Clarity of Procedures		
SERVICE	EXCELLENT	GOOD	FAIR	POOR	CLEAR	SOMEWHAT CONFUSING	CONFUSING
Admissions	21%	56%	19%	3%	56%	38%	6%
Registration	9%	38%	33%	20%	32%	41%	27%
Student Records	24%	50%	21%	6%	61%	32%	7%
Student Loans	11%	32%	34%	23%	25%	42%	33%
Student Grants	14%	29%	34%	24%	25%	39%	36%
Scholarships	17%	32%	31%	21%	32%	39%	29%
Student Conduct Office	16%	36%	29%	20%	52%	32%	16%
Treasurer's Office	15%	41%	29%	16%	55%	30%	16%
Drop/Add Procedure	10%	28%	32%	31%	42%	36%	22%
Preregistration	26%	47%	21%	6%	74%	22%	5%
N=809							

[1] Percentages computed only for students using that service

TABLE 11

RATING OF QUALITY AND IMPORTANCE OF PROGRAMS AND SERVICES IN THE MAJOR[1]

MAJOR SERVICE/PROGRAM	Rating				Importance[2]
	EXCELLENT	GOOD	FAIR	POOR	MEAN
Availability of Advisor	23%	43%	22%	13%	2.4
Willingness of Advisor to Help	34%	34%	24%	8%	2.5
Quality of Printed Program Information	15%	40%	32%	13%	2.2
Helpfulness of the Office Staff	20%	48%	25%	7%	2.0
Quality of Special Events	18%	38%	30%	14%	1.9
Adequacy of Preparation by Lower Division Courses for Upper Division Courses	14%	56%	24%	6%	2.6
Quality of Courses for Providing General Educ.	21%	55%	21%	3%	2.5
Quality of Courses in Preparing for Employment	18%	47%	29%	6%	2.8
Availability of Required Courses for the Major	13%	34%	30%	23%	2.7
Availability of Desired Courses for the Major	12%	35%	35%	19%	2.5
Organization of the Curriculum	17%	48%	28%	7%	2.4
Fairness of Grading	13%	55%	26%	6%	2.4
Quality of Instruction in Lower Division Courses in the Major	13%	45%	31%	10%	2.6
Quality of Instruction in Upper Division Courses in the Major	31%	48%	18%	3%	2.7
Opportunities for Interaction with Faculty in the Major	20%	36%	29%	15%	2.2
Practicum or Internship Experiences in the Major	25%	30%	27%	18%	2.4
Library Collection Related to the Major	18%	45%	29%	8%	2.2

N=809

[1] Based on students reporting a major or intended major

[2] Higher means indicate greater importance of that service to the student - Three point scale

TABLE 12

RATING OF QUALITY OF PROGRAMS AND SERVICES IN THE MAJOR:
MEANS BY COLLEGE

MAJOR SERVICE/PROGRAM	UNIVERSITY	Mean Responses[1] Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I
Availability of Advisor*	2.8	2.8	2.8	3.2	2.5	3.0	2.7	2.9	2.7	2.7
Willingness of Advisor to Help*	2.9	3.0	2.9	3.5	2.7	3.1	2.7	3.0	3.0	3.0
Quality of Printed Program Information*	2.6	2.7	2.5	2.6	2.4	2.8	2.1	3.0	2.6	2.7
Helpfulness of the Office Staff*	2.8	2.8	2.8	3.2	2.8	2.9	2.4	3.0	2.8	2.8
Quality of Special Events*	2.6	2.5	2.6	2.7	2.5	2.8	3.0	2.9	2.6	2.8
Adequacy of Preparation by Lower Division Courses for Upper Division Courses*	2.8	2.8	2.8	2.8	2.8	2.7	2.4	3.0	2.7	2.5
Quality of Courses: Providing General Educ.*	2.9	3.0	2.9	3.0	2.8	3.0	2.6	3.2	3.1	2.8
Quality of Courses: Preparing for Employt.*	2.8	2.7	2.8	2.8	2.8	2.9	2.6	3.3	2.9	2.3
Availability of Required Courses for the Major*	2.4	2.5	1.9	2.6	2.3	2.4	2.7	3.0	2.7	2.2
Availability of Desired Courses for the Major*	2.4	2.5	2.1	2.6	2.3	2.5	2.5	2.9	2.7	2.4
Organization of the Curriculum*	2.8	2.8	2.8	2.8	2.7	2.7	2.3	3.1	2.8	2.6
Fairness of Grading*	2.7	2.8	2.7	3.0	2.6	3.0	2.4	2.7	2.8	2.5
Quality of instruction in Lower Division Courses in the Major*	2.6	2.7	2.5	2.7	2.4	2.7	2.6	2.8	3.0	2.6
Quality of Instruction in Upper Division Courses in the Major	3.1	3.0	3.1	3.2	3.0	3.0	3.1	3.3	3.2	3.0
Opportunities for Interaction with Faculty in the Major*	2.6	2.5	2.5	3.2	2.4	2.9	2.8	3.0	2.8	2.7
Practicum / Intern in the Major*	2.6	2.3	2.3	2.7	2.7	3.2	2.0	3.1	3.2	2.9
Library Collection Related to the Major*	2.7	2.7	2.7	3.0	2.6	2.7	2.3	3.0	3.1	2.7
N=	809	170	118	68	86	72	62	73	65	83

[1] Higher means indicate higher rating

* $P < .05$

TABLE 13

RATING OF QUALITY OF PROGRAMS AND SERVICES IN THE MAJOR: MEANS[1] CLASS AND GRADE POINT AVERAGE

SERVICE	Classification				Grade Point Average	
	FRESHMAN	SOPHOMORE	JUNIOR	SENIOR	GREATER THAN 3.0	LESS THAN 3.0
Availability of Advisor	2.7	2.6	2.7	2.9*	2.8	2.7
Willingness of Advisor to Help	2.9	2.8	3.0	3.0	2.9	3.0
Quality of Printed Program Information	2.7	2.5	2.5	2.6	2.6	2.6
Helpfulness of the Office Staff	2.8	2.7	2.7	2.9*	2.9	2.8
Quality of Special Events	2.6	2.5	2.7	2.6	2.7	2.5*
Adequacy of Preparation by Lower Division Courses for Upper Division Courses	2.6	2.8	2.8	2.8	2.8	2.8
Quality of Courses for Providing General Educ.	2.9	3.0	2.9	3.0	3.0	2.9
Quality of Courses in Preparing for Employment	2.8	2.8	2.8	2.7	2.8	2.8
Availability of Required Courses for the Major	2.6	2.2	2.3	2.5*	2.5	2.3*
Availability of Desired Courses for the Major	2.5	2.2	2.3	2.5*	2.5	2.3*
Organization of the Curriculum	2.8	2.7	2.8	2.7	2.8	2.7
Fairness of Grading	2.8	2.6	2.8	2.8*	2.8	2.7*
Quality of Instruction in Lower Division Courses in the Major	2.6	2.6	2.6	2.6	2.7	2.6
Quality of Instruction in Upper Division Courses in the Major	2.8	3.0	3.0	3.2*	3.1	3.0
Opportunities for Interaction with Faculty in the Major	2.4	2.4	2.7	2.8*	2.7	2.6
Practicum or Internship Experiences - the Major	2.7	2.5	2.7	2.6	2.7	2.6
Library Collection Related to the Major	3.0	2.6	2.7	2.7*	2.7	2.7
N	171	190	187	237	344	462

[1] Higher means indicate higher rating

TABLE 14

RATING OF QUALITY AND IMPORTANCE OF FACETS OF THE CLASSROOM EXPERIENCE: ALL STUDENTS

	Ratings[1]				Importance[2]
	EXCELLENT	GOOD	FAIR	POOR	MEAN
Comprehen'ness-of Course Content	26%	50%	19%	5%	2.3
Relevence of Content for Student Needs	24%	44%	24%	8%	2.3
Extent to which Content is Current	39%	45%	14%	2%	2.3
Instructor's Class Presentations	37%	35%	18%	11%	2.5
Instructor's Class Preparation	47%	33%	15%	5%	2.5
Instructor's Enthusiasm for Teaching this Class	53%	27%	13%	7%	2.4
Instructor's Helpfulness /Student Problems	44%	29%	19%	9%	2.6
Fairness of Testing	30%	43%	19%	8%	2.5
Fairness of Grading	32%	43%	19%	7%	2.5
Clarity of Course Objectives	24%	42%	25%	10%	2.2
Conduciveness of Climate for Learning	24%	40%	29%	8%	2.2
Relevance of Lecture Information to Course Objectives	37%	41%	17%	6%	2.3
Quality of Classroom Discussion	26%	32%	26%	17%	2.2
Accuracy of Catalog Description - Course	15%	51%	26%	8%	1.8
Instructor's Knowledge of Subject Matter	66%	26%	7%	1%	2.7
Instructor's Availability for Consultation	32%	23%	18%	8%	2.4
Overall Quality of Instructor	48%	31%	14%	8%	...
Overall Quality of Course	24%	46%	24%	6%	...

N=809

1 Based on student evaluation of a specific randomly chosen course

2 Higher means indicate greater importance of that service to the student - Three point scale

TABLE 15

RATING OF QUALITY OF FACETS OF THE CLASSROOM EXPERIENCE: MEANS BY COLLEGE[1]

	Mean Responses[2]									
	UNIVERSITY	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I
Comprehen'ness-of Course Content	3.0	3.0	2.9	3.1	2.9	2.9	3.1	3.0	3.0	2.8
Relevence of Content for Student Needs	2.8	2.8	2.8	2.9	2.8	2.8	3.0	2.9	3.0	2.7
Extent to which Content is Current	3.2	3.2	3.1	3.3	3.1	3.1	3.3	3.2	3.4	3.1
Instructor's Class Presentations	3.0	2.9	3.0	3.0	2.8	2.9	3.1	3.0	3.0	3.0
Instructor's Class Preparation	3.2	3.3	3.2	3.3	3.1	3.1	3.2	3.1	3.3	3.3
Instructor's Enthu-siasm for Teaching this Class	3.3	3.3	3.2	3.3	3.2	3.1	3.4	3.1	3.3	3.3
Instructor's Help With Problems	3.1	3.1	3.0	3.0	3.0	3.0	3.3	3.0	3.1	2.9
Fairness - Testing	2.9	3.0	3.0	2.9	2.9	2.7	3.1	2.9	2.8	2.9
Fairness - Grading	3.0	3.0	3.0	3.0	2.9	2.8	3.1	2.9	2.9	2.9
Clarity of Course Objectives	2.8	2.8	2.9	2.8	2.7	2.8	2.8	2.9	2.8	2.7
Conduciveness of Climate-Learning	2.8	2.8	2.7	2.8	2.8	2.5	2.9	2.7	2.8	2.6
Relevance of Lecture Information to Course Objectives	3.1	3.1	3.0	3.2	3.1	3.0	3.1	3.1	3.1	3.0
Quality of Class-room Discussion	2.7	2.6	2.6	2.8	2.6	2.6	2.8	2.7	2.8	2.6
Accuracy of Catalog Description-Course	2.7	2.7	2.7	2.7	2.8	2.7	2.6	2.8	2.6	2.7
Inst's Knowledge of Subject Matter	3.6	3.6	3.5	3.6	3.5	3.4	3.6	3.6	3.7	3.5
Instructor's Availability for Consultation	3.0	3.1	3.0	3.0	2.8	2.9	2.9	3.0	3.1	3.0
Overall Quality of Instructor	3.2	3.2	3.2	3.3	3.0	3.0	3.4	3.2	3.2	3.1
Overall Quality of Course	2.9	2.9	2.9	3.0	2.8	2.8	3.0	2.9	3.0	2.8
	809	170	118	68	86	72	62	73	65	83

[1] College in which course is being taken

[2] Higher means indicate higher rating

TABLE 16

RATING OF QUALITY AND IMPORTANCE OF FACETS OF THE CLASSROOM EXPERIENCE: MEANS[1] BY STUDENT CLASS AND GRADE POINT AVERAGE

	Classification				Grade Point Average	
	FRESHMAN	SOPHOMORE	JUNIOR	SENIOR	GREATER THAN 3.0	LESS THAN 3.0
Comprehen'ness- of Course Content	3.0	2.9	2.9	3.0	3.0	..9*
Relevence of Content for Student Needs	2.7	2.7	2.9	2.9*	2.8	2.8
Extent to which Content is Current	3.1	3.2	3.2	3.3	3.2	3.2
Instructor's Class Presentations	3.0	2.9	2.9	3.0	3.0	2.9
Instructor's Class Preparation	3.3	3.2	3.2	3.3	3.3	3.2
Instructor's Enthu- siasm for Teaching this Class	3.2	3.2	3.2	3.2	3.3	3.2
Instructor's Helpful- ness /Student Problems	3.1	3.1	3.0	3.1	3.1	3.0
Fairness of Testing	3.1	2.9	2.8	2.9	3.0	2.9*
Fairness of Grading	3.1	2.9	2.9	3.0	3.1	2.9*
Clarity of Course Objectives	2.8	2.6	2.7	2.9*	2.9	2.7
onduciveness of limate for Learning	2.7	2.7	2.8	2.8	2.8	2.7
elevance of Lecture nformation to ourse Objectives	3.0	3.0	3.1	3.2	3.2	3.0*
ality of assroom Discussion	2.7	2.5	2.6	2.8	2.7	2.7
curacy of Catalog scription - Course	2.8	2.7	2.7	2.7	2.8	2.7
structor's Knowledge Subject Matter	3.5	3.5	3.6	3.6	3.6	3.5*
structor's ailability for sultation	3.0	2.9	2.9	3.1*	3.0	3.0
rall Quality of tructor	3.2	3.1	3.1	3.3*	3.2	3.2
-all Quality of -se	2.9	2.8	2.9	2.9	2.9	2.9
	171	190	187	237	344	462

gher means indicate higher rating

< .05

TABLE 17

RATING OF QUALITY AND IMPORTANCE OF FACETS OF THE CLASSROOM EXPERIENCE: MEANS[1] BY FACULTY/GRAD ASST AND REASON FOR TAKING CLASS

	Instructor		Reason for Taking Class		
	Faculty Member	Graduate Assistant	Major Requirement	Reccomended For Major	Elective
Comprehen'ness-of Course Content	2.8	3.0*	2.9	2.9	3.1
Relevence of Content for Student Needs	2.9	2.8	2.8	2.9	2.8
Extent to which Content is Current	3.2	3.1	3.1	3.3	3.3*
Instructor's Class Presentations	3.0	2.9	2.9	2.9	3.2*
Instructor's Class Preparation	3.3	3.1	3.1	3.2	3.5*
Instructor's Enthu-siasm for Teaching this Class	3.3	3.1*	3.2	3.3	3.4*
Instructor's Helpful-ness /Student Problems	3.0	3.1	3.0	3.0	3.3*
Fairness of Testing	3.0	2.8*	2.9	2.9	3.0
Fairness of Grading	3.0	2.9	2.9	3.0	3.2*
Clarity of Course Objectives	2.8	2.7	2.7	2.8	2.9*
Conduciveness of Climate for Learning	2.8	2.7	2.7	2.8	3.0*
Relevance of Lecture Information to Course Objectives	3.1	3.0*	3.0	3.1	3.2
Quality of Classroom Discussion	2.7	2.5	2.6	2.8	2.9*
Accuracy of Catalog Description - Course	2.7	2.7	2.7	2.7	2.7
Instructor's Knowledge of Subject Matter	3.7	3.3*	3.5	3.6	3.6
Instructor's Availability for Consultation	3.0	3.0	2.9	3.1	3.1
Overall Quality of Instructor	3.2	3.1*	3.1	3.2	3.4*
Overall Quality of Course	2.9	2.8*	2.8	3.0	3.0*
N	524	180	477	107	199

[1] Higher means indicate higher rating

* $p < .05$

TABLE 18

SELECTED STUDENT OPINIONS AND CHARACTERISTICS: MEANS BY COLLEGE

Characteristic	Univ.	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I
SEX										
Male	52%	48%	61%	65%	82%	12%	80%	8%	23%	35%
Female	46%	52%	39%	35%	18%	88%	20%	92%	77%	65%
RESIDENCE										
Dormitory	44%	42%	42%	31%	55%	52%	52%	51%	47%	40%
Apartment	27%	25%	29%	33%	28%	28%	35%	26%	20%	27%
Fraternity	3%	5%	4%	9%	4%	0%	4%	0%	1%	2%
None	26%	28%	25%	26%	14%	20%	9%	24%	22%	31%
COMMUNITY OF ORIGIN										
Farm	5%	5%	3%	27%	5%	11%	5%	7%	2%	4%
Non-farm Rural	11%	9%	7%	24%	12%	10%	15%	18%	11%	17%
Town Under 2,500	3%	2%	1%	3%	4%	3%	5%	6%	8%	2%
Town 2,500 - 25,000	16%	13%	21%	4%	19%	19%	11%	14%	17%	13%
Town 25,000 - 100,000	24%	26%	21%	19%	24%	21%	26%	19%	35%	34%
City Over 100,000	42%	45%	48%	22%	38%	36%	39%	37%	26%	29%
HOURS WORKING										
None	54%	53%	50%	46%	65%	60%	63%	66%	57%	40%
1 - 9 Hours	9%	8%	9%	15%	12%	7%	10%	7%	9%	7%
10 - 19 Hours	15%	18%	13%	18%	9%	15%	18%	13%	14%	22%
20 or over hours	22%	21%	28%	22%	14%	18%	10%	13%	20%	31%
PROPORTION OF EDUCATION PAID BY PARENTS										
More Than half	59%	62%	68%	52%	48%	67%	63%	58%	57%	63%
Less Than half	15%	13%	10%	24%	26%	17%	17%	15%	11%	19%
None	26%	25%	21%	24%	26%	17%	20%	26%	32%	18%
NUMBER OF CLOSE RELATIONSHIPS WITH FACULTY										
None	48%	41%	55%	35%	69%	44%	47%	47%	37%	46%
One	13%	14%	12%	9%	12%	13%	16%	7%	16%	20%
Two	17%	23%	10%	21%	10%	19%	10%	23%	25%	14%
Three or More	22%	23%	23%	35%	10%	24%	27%	23%	22%	20%
HOURS ON CAMPUS EACH WEEK OUTSIDE OF CLASS										
Under 10	29%	31%	27%	29%	21%	22%	7%	38%	45%	34%
10 - 20	14%	14%	14%	19%	17%	17%	13%	10%	9%	12%
20 - 30	8%	7%	9%	13%	4%	14%	11%	8%	5%	11%
Over 30	49%	47%	50%	38%	59%	48%	69%	44%	42%	43%
FRATERNITY OR SORORITY?										
Yes	22%	22%	35%	29%	13%	26%	13%	28%	12%	28%
No	78%	78%	65%	71%	87%	74%	87%	72%	88%	72%
SATISFIED WITH SOCIAL EXPERIENCE AT U.T.K?										
Very Satisfied	36%	36%	41%	41%	25%	34%	29%	52%	36%	41%
Somewhat Satisfied	48%	46%	44%	44%	60%	49%	47%	38%	50%	43%
Somewhat Dissatisfied	13%	14%	12%	10%	13%	16%	19%	6%	9%	16%
Very Dissatisfied	4%	4%	3%	4%	2%	1%	5%	4%	5%	0%
SATISFIED WITH ACADEMIC EXPERIENCE AT U.T.K?										
Very Satisfied	20%	15%	24%	16%	17%	22%	21%	36%	32%	16%
Somewhat Satisfied	52%	51%	50%	51%	58%	56%	55%	49%	40%	46%
Somewhat Dissatisfied	23%	26%	21%	29%	21%	17%	23%	12%	23%	32%
Very Dissatisfied	5%	7%	5%	3%	4%	6%	2%	3%	5%	6%

APPENDIX 9

Instructional Evaluation Information for College D

Prepared for

College D

by

The Learning Research Center
1819 Andy Holt Avenue
Telephone 974-2459

Sources of Instructional Evaluation Information for College D

NOTE: (+) or (-) Based on University Average
(⊖) = Lowest rating of all Colleges

I. STUDENT ACHIEVEMENT

General Education

Mean Entering ACT Score (+)
Mean Total COMP Score (+)
Estimated Gain on COMP (-)

Achievement in Major

National Professional Exam

II. OTHER SOURCES

Dean's Follow-Up Survey of Seniors (Winter 1984)
Student Evaluations of Instruction

III. STUDENT RATINGS

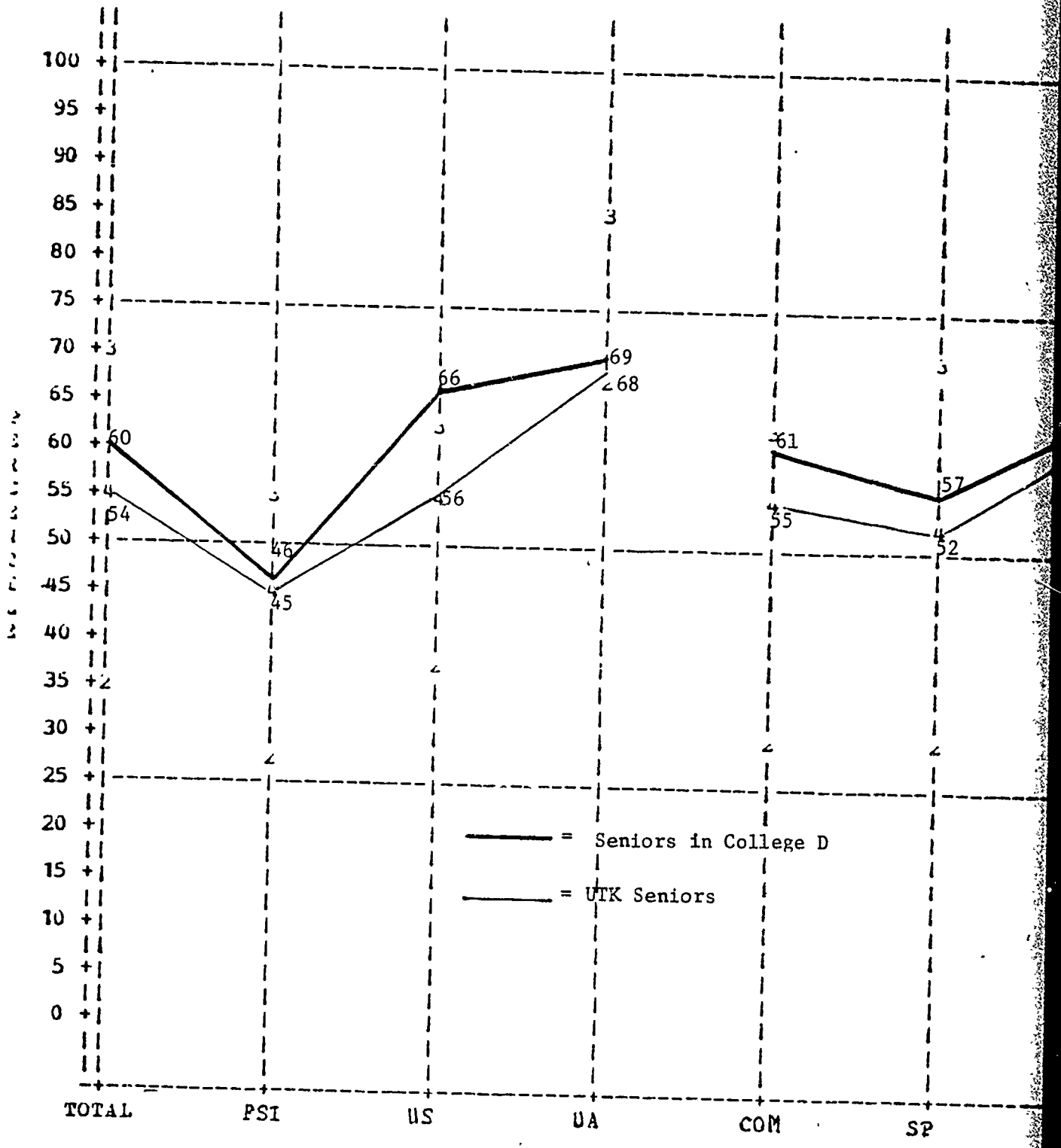
Quality of Program Services in the Major Table 12		Quality of Classroom Experience Table 15	
Availability of Advisor	(⊖)	Comprehen'ness-of Course Content	(-)
Willingness of Advisor to Help	(-)	Relevence of Content for Student Needs	
Quality of Printed Program Information	(-)	Extent to which Content is Current	(-)
Helpfulness of the Office Staff		Instructor's Class Presentations	(⊖)
Quality of Special Events	(-)	Instructor's Class Preparation	(-)
Adequacy of Preparation by Lower Division Courses for Upper Division Courses		Instructor's Enthusiasm for Teaching this Class	(-)
Quality of Courses: Proviuing General Educ	(-)	Instructor's Help With Problems	(-)
Quality of Courses: Preparing for Employt.		Fairness - Testing	
Availability of Required Courses for the Major	(-)	Fairness - Grading	(-)
Availability of Desired Courses for the Major	(-)	Clarity of Course Objectives	(-)
Organization of the Curriculum	(-)	Conduciveness of Climate-Learning	
Fairness of Grading	(-)	Relevance of Lecture Information to Course Objectives	
Quality of Instruction in Lower Division Courses in the Major	(⊖)	Quality of Class-room Discussion	(-)
Quality of Instruction in Upper Division Courses in the Major	(-)	Accuracy of Catalog Description-Course	(+)
Opportunities for Interaction with Faculty in the Major	(⊖)	Inst's Knowledge of Subject Matter	(-)
Practicum / Intern in the Major	(+)	Instructor's Availability for Consultation	(⊖)
Library Collection Related to the Major	(-)	Overall Quality of Instructor	(-)
		Overall Quality of Course	(-)

Satisfaction with Social Experience at UTK (+)
Satisfaction with Academic Experience at UTK (+)

COMP RESULTS PROFILED ON SENIOR REFERENCE GROUP NORMS
BASED ON PERCENTILES FOR 6510 SENIORS AT 70 INSTITUTIONS
13:49 SATURDAY, JUNE 25,

PLOT OF PCTILE * SCALES SYMBOL IS VALUE FOR GRADE LEVEL
1=FRESHMEN 2=SOPHOMORES 3=JUNIORS 4=SENIORS
INST=3 IN KNOXVILLE N=700

PLOT OF 1*X SYMBOL IS VALUE OF GRADE



NOTE: 1 OBS HIDDEN

University of Tennessee-Knoxville
COMP Objective Test Means (Equated to Form III)
for Senior Samples Tested in 1980-1983

	May 1980 N = 165 Seniors	April 1981 N = 680 Seniors	April 1982 N = 644 Seniors	May 1983 N = 700 Seniors	Maximum
Total	192.3	187.9	189.3	188.9	240
FSI	66.1	65.1	64.1	63.5	80
US	66.1	64.0	64.3	64.5	80
UA	60.1	59.1	61.2	61.3	80
COM	55.8	54.7	54.3	54.0	72
SP	78.3	76.5	76.7	76.6	96
CV	58.2	56.8	58.2	58.2	72
ACT/E	23.6	--	21.5	22.3	
(N)	(119)	--	(467)	(382)	

COMP SCALES

- Communicating: Can send and receive information in a variety of modes (written, graphic, oral, numeric, and symbolic), within a variety of settings (one-to-one, in small and large groups), and for a variety of purposes (for example, to inform, to understand, to persuade, and to analyze).
- Solving Problems: Can analyze a variety of problems (for example, scientific, social, personal); select or create solutions to problems; and implement solutions.
- Clarifying Values: Can identify one's personal values and the personal values of other individuals; understand how personal values develop; and analyze the implications of decisions made on the basis of personally held values.
- Functioning within Social Institutions: Can identify those activities and institutions which constitute the social aspects of a culture (for example, governmental and economic systems, religion, marital and familial institutions, employment, and civic volunteer and recreational organizations); understand the impact that social institutions have on individuals in a culture; and analyze one's own and others' personal functioning within social institutions.
- Using Science and Technology: Can identify those activities and products which constitute the scientific/technological aspects of a culture (for example, transportation, housing, energy, processed food, clothing, health maintenance, entertainment and recreation, mood-altering, national defense, communication, and data processing); understand the impact of such activities and products on the individuals and the physical environment in a culture; and analyze the uses of technological products in a culture and one's personal use of such products.
- Using the Arts: Can identify those activities and products which constitute the artistic aspects of a culture (for example, graphic art, music, drama, literature, dance, sculpture, film, architecture); understand the impact that art, in its various forms, has on individuals in a culture; and analyze uses of works of art within a culture and one's personal use of art.

University of Tennessee, Knoxville
COMP Estimated Mean Gains by College
Based on Seniors with ACT Scores

College	1982 N/ ACT Score	1982 Mean ACT Composite	1982 Estimated Mean Gain on COMP	1983 N/ ACT Score	1983 Mean ACT Composite	1983 Estimated Mean Gain on COMP
A	32	22.1	7.2	29	22.1	9.3
B	8	26.0	6.4	17	23.8	4.1
C	142	21.3	9.0	101	21.7	6.1
E	34	19.9	9.0	35	20.9	10.1
F	42	18.2	13.2	25	17.2	11.1
D	56	25.6	2.5	78	24.3	1.7
G	63	19.8	7.5	19	20.3	7.2
H	38	23.8	4.2	65	23.4	2.4
I	53	20.3	11.5	13	23.0	4.8
All Combined	468	21.5	8.1	382	22.3	5.2

Percentages of Students Having Taken College Mathematics

	University	Col. A	Col. B	Col. C	Col. E	Col. F	Col. D	Col. G	Col. H	Col. I
College Algebra or Pre-Calculus	56.3	83.3	26.1	79.7	63.3	41.7	28.4	73.3	149.7	81.5
Business Calculus	27.7	58.3	30.4	56.4	30.6	6.9	8.1	20.0	19.0	0.0
Mathematics of Finance	25.8	56.3	21.7	59.3	14.3	5.6	7.4	16.7	16.3	0.0
Freshman Calculus I	43.6	27.1	65.2	28.5	10.2	15.3	96.6	10.0	46.3	18.5
Freshman Calculus II	39.0	16.7	60.9	21.5	8.2	13.9	96.6	10.0	39.5	7.4
Freshman Calculus III	35.8	10.4	52.2	20.9	4.1	12.5	96.6	0.0	32.7	3.7
Sophomore Calculus I	27.8	8.3	4.3	6.4	0.0	6.9	98.6	0.0	21.8	0.0
Sophomore Calculus II	27.0	4.2	0.0	5.8	0.0	6.9	98.0	0.0	21.1	0.0
Sophomore Calculus III	26.3	4.2	0.0	4.1	0.0	6.9	98.0	0.0	19.7	0.0

N = 148

TABLE 8

COMP RESULTS PROFILED ON ENTERING FRESHMAN REFERENCE GROUP NORMS
BASED ON PERCENTILES FOR 8951 FRESHMAN AT 46 INSTITUTIONS

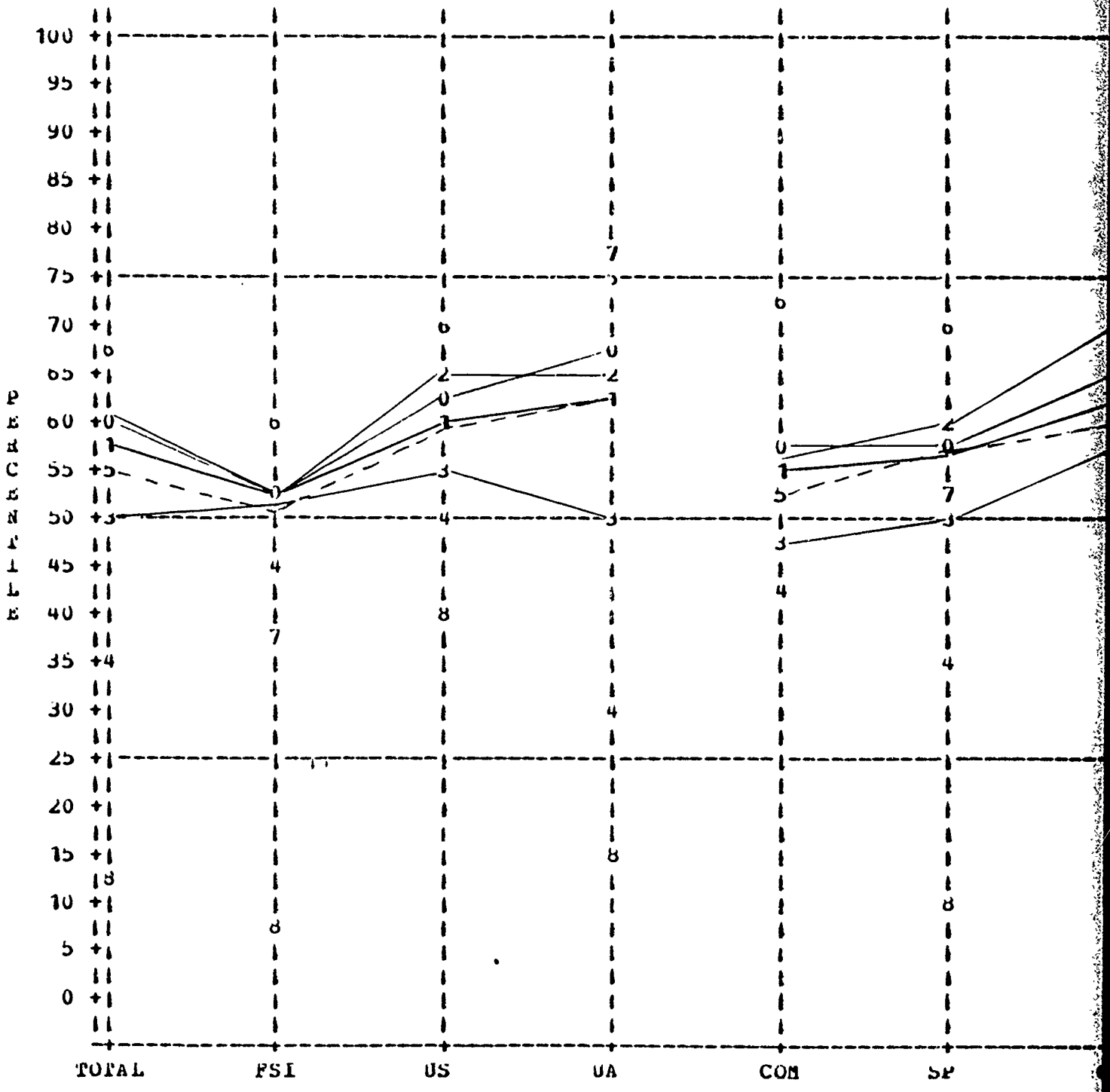
0:57 WEDNESDAY, JANUARY 18, 19

PLOT OF PCTILE * SCALES SYMBOL IS VALUE FOR CATEGORY2
SPECIAL CATEGORY2 ARE 0-9

0=Grad/Prof N=128 1=BetterJob N=349 2=Gen Educ N=40 3=MakeMoney N=41 4=
5=Learn 6= 7= 8= 9=

INST=0 TN KNOXVILLE -

PLOT OF Y*X SYMBOL IS VALUE OF CATEGORY2



SUBTESTS 1-6 AND TOTAL SCORE

NOTE: 15 OBS HIDDEN

Percentages of Students Having Taken 2- or 3- Course Sequences in Natural Sciences

	University	Col. A	Col. B	Col. C	Col. E	Col. F	Col. D	Col. G	Col. H	Col. I
Astronomy	7.8	0.0	0.0	12.8	16.3	15.3	2.0	0.0	8.2	0.0
Basic Engineering	18.6	10.4	8.7	2.3	0.0	2.8	77.0	0.0	4.1	0.0
Biology	36.0	64.6	8.7	31.4	26.5	70.8	10.8	56.7	40.8	51.9
Botany	3.6	16.7	0.0	1.2	0.0	2.8	1.4	3.3	7.5	0.0
Chemistry	45.5	89.6	13.0	12.8	12.2	22.2	94.6	50.0	36.7	100.0
Geological Science	14.1	18.8	0.0	18.0	26.5	23.6	5.4	13.3	12.9	0.0
Microbiology	3.8	10.4	4.3	1.2	0.0	1.4	0.7	10.0	3.4	33.3
Physics	33.5	33.3	91.3	11.6	0.0	15.3	88.5	13.3	25.2	0.0
Zoology	8.5	8.3	0.0	1.7	0.0	6.9	2.7	20.0	12.9	74.1

Percentages of Students Having Taken the Following Social/Applied Sciences

	University	Col. A	Col. B	Col. C	Col. E	Col. F	Col. D	Col. G	Col. H	Col. I
Anthropology	31.3	33.3	8.7	15.7	63.3	37.5	15.5	50.0	38.8	96.3
Audiology & Speech Pathology	4.1	4.2	0.0	1.2	4.1	19.4	0.0	0.0	5.4	3.7
Economics	71.1	85.4	17!4	94.2	95.9	40.3	82.4	93.3	49.7	11.1
Geography	33.8	37.5	4.3	36.6	32.7	48.6	42.6	16.7	27.9	0.0
Human Services/ Social Work	11.0	0.0	0.0	11.6	6.1	34.7	2.0	16.7	11.6	22.2
Political Science	41.3	27.1	4.3	47.7	98.0	43.1	23.6	26.7	49.7	18.5
Psychology	74.9	75.0	56.5	71.5	95.9	97.2	66.2	83.3	67.3	92.6
Sociology	61.6	56.3	21.7	64.0	95.9	79.2	48.0	76.7	52.4	88.9

Percentages of Students Having Taken the Following Areas In a History Sequence of at Least Two Courses

	University	Col. A	Col. B	Col. C	Col. E	Col. F	Col. D	Col. G	Col. H	Col. I
Afro-American History	1.3	2.1	0.0	0.6	0.0	0.0	0.7	0.0	4.1	0.0
American History	36.2	33.3	26.1	36.0	20.4	58.3	21.6	33.3	52.4	14.8
Cultural Studies	3.4	2.1	0.0	1.7	2.0	0.0	1.4	6.7	8.8	7.4
Western Civiliz.	21.8	10.4	13.0	11.6	95.9	13.9	6.8	6.7	36.7	18.5
World Civilization	2.8	2.1	8.7	1.2	2.0	1.4	4.7	0.0	4.1	0.0

Percentages of Students Having Taken the Following Areas of the Humanities

	University	Col. A	Col. B	Col. C	Col. E	Col. F	Col. D	Col. G	Col. H	Col. I
Art - History or Appreciation	22.5	12.5	39.1	13.4	20.4	40.3	15.5	40.0	32.0	7.4
Art - Studio	12.2	12.5	52.2	5.8	20.4	9.7	2.0	23.3	20.4	7.4
Dance	12.4	16.7	8.7	10.5	12.2	25.0	4.7	16.7	15.0	11.1
Literature - Modern or Classical	63.4	37.5	13.0	73.8	81.6	73.6	47.3	70.0	76.9	33.3
Music - History or Appreciation	28.6	14.6	4.3	19.8	46.9	63.9	22.3	40.0	29.3	22.2
Music - Performance	10.2	8.3	4.3	9.3	16.3	19.4	4.7	6.7	11.6	14.8
Philosophy	38.0	33.3	26.1	27.9	44.9	45.8	26.4	46.7	49.7	77.8
Religious Studies	22.6	6.3	8.7	14.5	30.6	33.3	16.9	33.3	33.3	33.3
Speech & Theatre	44.8	58.3	8.7	55.8	79.6	55.6	23.0	50.0	42.2	18.5

TABLE 2

STUDENT USE OF GENERAL UNIVERSITY PROGRAMS AND SERVICES:
MEANS BY COLLEGE

		Mean Responses[1]								
PROGRAM/SERVICE	UNIVERSITY	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I
Main Library*	2.5	2.5	2.5	2.3	2.4^{-}	2.8	3.0	2.8	2.3	2.6
Undergraduate Library*	3.4	3.5	3.5	3.2	3.2^{-}	3.3	3.0	3.0	3.6	3.4
Career Planning & Placement Center*	1.4	1.3	1.4	1.4	1.5^{+}	1.4	1.2	1.1	1.5	1.2
Counseling Center*	1.3	1.3	1.5	1.3	1.1^{-}	1.2	1.2	1.3	1.1	1.2
Recreation or Intramural Activity*	2.5	2.4	2.7	2.9	2.7^{+}	2.2	2.6	2.4	2.4	2.4
Writing Lab	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.1
Student Employment Services	1.4	1.4	1.3	1.5	1.5^{+}	1.5	1.4	1.4	1.3	1.4
Health Services	2.0	2.0	2.0	2.2	2.0	2.2	2.0	2.4	2.0	2.1
Campus Plays*	2.1	2.2	1.9	1.9	(1.8)$^{-}$	2.2	2.0	2.0	2.0	2.5
Campus Film Series*	2.3	2.4	2.1	2.2	2.4^{+}	2.1	2.5	2.1	1.8	2.3
Campus Concert Series	2.1	2.2	1.9	2.1	(1.8)$^{-}$	2.2	2.0	1.9	2.0	2.1
Computer Services*	1.8	1.6	2.4	1.7	2.5^{++}	1.2	2.4	1.1	1.2	1.3
University Bookstore	3.7	3.7	3.6	3.6	3.7	3.7	3.7	3.8	3.7	3.7
N	809	170	118	68	86	72	62	73	65	83

[1] Higher means indicate greater use

* $P < .05$

NOTE: ++ Highest of all colleges
+ Higher than University Mean
- Lower than University Mean
0- Lowest of all colleges

TABLE 6

PERCEIVED QUALITY OF GENERAL UNIVERSITY PROGRAMS AND SERVICES: MEANS BY COLLEGE

PROGRAM/SERVICE	Mean Responses[1] UNIVERSITY	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I
Main Library	2.9	2.9	3.1	2.9	3.0+	2.9	2.8	3.0	2.8	2.8
Undergraduate Library*	3.0	2.9	3.1	3.0	3.0	3.0	2.7	3.0	3.3	2.9
Career Planning & Placement Center	2.6	2.5	2.8	2.6	2.8+	2.7	2.3	2.9	2.6	2.4
Counseling Center	2.5	2.6	2.4	2.6	2.7+	2.5	2.1	2.7	2.4	2.3
Recreation or Intramural Activity	2.9	2.9	2.9	3.1	2.9	3.1	2.9	3.2	3.0	2.6
Writing Lab	2.4	2.7	2.1	2.5	2.5+	2.7	1.5	3.5	2.3	2.4
Student Employment Services	2.5	2.5	2.6	2.4	2.7+	2.4	2.5	2.6	2.7	2.0
Health Services	2.6	2.5	2.8	2.5	2.6	2.4	2.5	2.5	2.8	2.5
Campus Plays	3.2	3.2	3.1	3.2	3.0−	3.3	3.1	3.3	3.1	3.0
Campus Film Series	2.9	3.0	2.9	3.0	2.9	2.8	2.8	3.1	2.8	3.0
Campus Concert Series	2.9	3.0	2.8	3.0	2.7−	2.8	2.9	3.0	2.9	2.7
Computer Services	2.5	2.5	2.5	2.7	2.6+	2.3	2.6	2.4	2.5	2.4
University Bookstore	3.0	2.9	3.1	2.9	3.0	3.0	2.6	3.2	3.3	2.8
N	809	170	118	68	86	72	62	73	65	83

[1] Higher means indicate higher rating of service

* $p < .05$

TABLE 9

STUDENT RATINGS OF UNIVERSITY SERVICES:
MEANS BY COLLEGE

SERVICE	UNIVERSITY	Mean Responses[1] Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I
Admissions*	3.0	3.0	3.0	3.0	3.0	2.8	2.7	2.9	3.0	2.7
Registration	2.4	2.4	2.4	2.5	2.5+	2.3	2.2	2.4	2.4	2.2
Student Records	2.9	2.8	2.9	3.0	3.1++	2.8	2.8	2.9	3.0	2.8
Student Loans	2.3	2.4	2.2	2.6	2.4+	2.3	2.2	2.2	2.3	2.2
Student Grants	2.3	2.4	2.2	2.3	2.4+	2.3	2.1	2.2	2.3	2.1
Scholarships	2.5	2.4	2.4	2.6	2.5	2.8	2.0	2.3	2.5	2.5
Student Conduct Office	2.5	2.5	2.4	2.6	2.6+	2.5	2.1	2.5	2.3	2.4
Treasurer's Office	2.5	2.4	2.6	2.6	2.8++	2.5	2.4	2.6	2.6	2.6
Drop/Add Procedure	2.2	2.2	2.1	2.2	2.3+	2.0	2.2	2.3	2.3	2.2
Preregistration	2.9	2.9	2.9	3.0	3.0+	3.0	2.6	3.1	3.1	2.7
N	809	170	118	68	86	72	62	73	65	83

[1] Higher means indicate higher rating

* $P < .05$

TABLE 12

RATING OF QUALITY OF PROGRAMS AND SERVICES IN THE MAJOR: MEANS BY COLLEGE

MAJOR SERVICE/PROGRAM	UNIVERSITY	Mean Responses[1] Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I
Availability of Advisor*	2.8	2.8	2.8	3.2	2.5⁻	3.0	2.7	2.9	2.7	2.7
Willingness of Advisor to Help*	2.9	3.0	2.9	3.5	2.7⁻	3.1	2.7	3.0	3.0	3.0
Quality of Printed Program Information*	2.6	2.7	2.5	2.6	2.4⁻	2.8	2.1	3.0	2.6	2.7
Helpfulness of the Office Staff*	2.8	2.8	2.8	3.2	2.8	2.9	2.4	3.0	2.8	2.8
Quality of Special Events*	2.6	2.5	2.6	2.7	2.5⁻	2.8	3.0	2.9	2.6	2.8
Adequacy of Preparation by Lower Division Courses for Upper Division Courses*	2.8	2.8	2.8	2.8	2.8	2.7	2.4	3.0	2.7	2.5
Quality of Courses: Providing General Educ.*	2.9	3.0	2.9	3.0	2.8⁻	3.0	2.6	3.2	3.1	2.8
Quality of Courses: Preparing for Employt.*	2.8	2.7	2.8	2.8	2.8	2.9	2.6	3.3	2.9	2.5
Availability of Required Courses for the Major*	2.4	2.5	1.9	2.6	2.3⁻	2.4	2.7	3.0	2.7	2.2
Availability of Desired Courses for the Major*	2.4	2.5	2.1	2.6	2.3⁻	2.5	2.5	2.9	2.7	2.4
Organization of the Curriculum*	2.8	2.8	2.8	2.8	2.7⁻	2.7	2.3	3.1	2.8	2.6
Fairness of Grading*	2.7	2.8	2.7	3.0	2.6⁻	3.0	2.4	2.7	2.8	2.5
Quality of Instruction in Lower Division Courses in the Major*	2.6	2.7	2.5	2.7	2.4⁻	2.7	2.6	2.8	3.0	2.6
Quality of Instruction in Upper Division Courses in the Major	3.1	3.0	3.1	3.2	3.0⁻	3.0	3.1	3.3	3.2	3.0
Opportunities for Interaction with Faculty in the Major*	2.6	2.5	2.5	3.2	2.4⁻	2.9	2.8	3.0	2.8	2.7
Practicum / Intern in the Major*	2.6	2.3	2.3	2.7	2.7⁺	3.2	2.0	3.1	3.2	2.9
Library Collection Related to the Major*	2.7	2.7	2.7	3.0	2.6⁻	2.7	2.3	3.0	3.1	2.7
N=	809	170	118	68	86	72	62	73	65	83

[1] Higher means indicate higher rating

* $P < .05$

TABLE 15

RATING OF QUALITY OF FACETS OF THE CLASSROOM EXPERIENCE: MEANS BY COLLEGE[1]

	Mean Responses[2]								
	UNIVERSITY	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I
Comprehen'ness-of Course Content	3.0	3.0	2.9	3.1	2.9⁻	2.9	3.1	3.0	3.0	2.8
Relevence of Content for Student Needs	2.8	2.8	2.8	2.9	2.8	2.8	3.0	2.9	3.0	2.7
Extent to which Content is Current	3.2	3.2	3.1	3.3	3.1⁻	3.1	3.3	3.2	3.4	3.1
Instructor's Class Presentations	3.0	2.9	3.0	3.0	(2.8)⁻	2.9	3.1	3.0	3.0	3.0
Instructor's Class Preparation	3.2	3.3	3.2	3.3	3.1⁻	3.1	3.2	3.1	3.3	3.3
Instructor's Enthusiasm for Teaching this Class	3.3	3.3	3.2	3.3	3.2⁻	3.1	3.4	3.1	3.3	3.3
Instructor's Help With Problems	3.1	3.1	3.0	3.0	3.0⁻	3.0	3.3	3.0	3.1	2.9
Fairness - Testing	2.9	3.0	3.0	2.9	2.9	2.7	3.1	2.9	2.8	2.9
Fairness - Grading	3.0	3.0	3.0	3.0	2.9⁻	2.8	3.1	2.9	2.9	2.9
Clarity of Course Objectives	2.8	2.8	2.9	2.8	2.7⁻	2.8	2.8	2.9	2.8	2.7
Conduciveness of Climate-Learning	2.8	2.8	2.7	2.8	2.8	2.5	2.9	2.7	2.8	2.6
Relevance of Lecture Information to Course Objectives	3.1	3.1	3.0	3.2	3.1	3.0	3.1	3.1	3.1	3.0
Quality of Classroom Discussion	2.7	2.6	2.6	2.8	2.6⁻	2.6	2.8	2.7	2.8	2.6
Accuracy of Catalog Description-Course	2.7	2.7	2.7	2.7	2.8⁺	2.7	2.6	2.8	2.6	2.7
Inst's Knowledge of Subject Matter	3.6	3.6	3.5	3.6	3.5⁻	3.4	3.6	3.6	3.7	3.5
Instructor's Availability for Consultation	3.0	3.1	3.0	3.0	(2.8)⁻	2.9	2.9	3.0	3.1	3.0
Overall Quality of Instructor	3.2	3.2	3.2	3.3	3.0⁻	3.0	3.4	3.2	3.2	3.1
Overall Quality of Course	2.9	2.9	2.9	3.0	2.8⁻	2.8	3.0	2.9	3.0	2.8
N	809	170	118	68	86	72	62	73	65	83

[1] College in which course is being taken

[2] Higher means indicate higher rating

TABLE 18

SELECTED STUDENT OPINIONS AND CHARACTERISTICS: MEANS BY COLLEGE

Characteristic	Univ.	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I
SEX										
Male	52%	48%	61%	65%	82%++	12%	80%	8%	23%	35%
Female	48%	52%	39%	35%	18%	88%	20%	92%	77%	65%
RESIDENCE										
Dormitory	44%	42%	42%	31%	55%	52%	52%	51%	47%	40%
Apartment	27%	25%	29%	33%	28%	28%	35%	26%	20%	27%
Fraternity	3%	5%	4%	9%	4%	0%	4%	0%	1%	2%
Home	26%	28%	25%	26%	14%	20%	9%	24%	22%	31%
COMMUNITY OF ORIGIN										
Farm	5%	5%	3%	27%	5%	11%	5%	7%	2%	4%
Non-farm Rural	11%	9%	7%	24%	12%	10%	15%	18%	11%	17%
Town Under 2,500	3%	2%	1%	3%	4%	3%	5%	6%	8%	2%
Town 2,500 - 25,000	16%	13%	21%	4%	19%	19%	11%	14%	17%	13%
Town 25,000 - 100,000	24%	26%	21%	19%	24%	21%	26%	19%	35%	24%
City Over 100,000	42%	45%	48%	22%	36%	36%	39%	37%	28%	39%
HOURS WORKING										
None	54%	53%	50%	46%	65%+	60%	63%	66%	57%	40%
1 - 9 Hours	9%	8%	9%	15%	12%	7%	10%	7%	9%	7%
10 - 19 Hours	15%	18%	13%	18%	9%-	15%	18%	13%	14%	22%
20 or over hours	22%	21%	28%	22%	14%	18%	10%	13%	20%	31%
PROPORTION OF EDUCATION PAID BY PARENTS										
More Than half	59%	62%	68%	52%	48%	67%	63%	58%	57%	63%
Less Than half	15%	13%	10%	24%	26%	17%	17%	15%	11%	19%
None	26%	25%	21%	24%	26%	17%	20%	26%	32%	18%
NUMBER OF CLOSE RELATIONSHIPS WITH FACULTY										
None	48%	41%	55%	35%	69%++	44%	47%	47%	37%	46%
One	13%	14%	12%	9%	12%	13%	16%	7%	16%	20%
Two	17%	23%	10%	21%	10%-	19%	10%	23%	25%	14%
Three or More	22%	23%	23%	35%	10%-	24%	27%	23%	22%	20%
HOURS ON CAMPUS EACH WEEK OUTSIDE OF CLASS										
Under 10	29%	31%	27%	29%	21%-	22%	7%	38%	45%	34%
10 - 20	14%	14%	14%	19%	17%	17%	13%	10%	9%	12%
20 - 30	8%	7%	9%	13%	4%	14%	11%	8%	5%	11%
Over 30	49%	47%	50%	38%	59%+	48%	69%	44%	42%	43%
FRATERNITY OR SORORITY?										
Yes	22%	22%	35%	29%	13%	26%	13%	28%	12%	28%
No	78%	78%	65%	71%	87%+	74%	87%	72%	88%	72%
SATISFIED WITH SOCIAL EXPERIENCE AT U.T.K?										
Very Satisfied	36%	36%	41%	41%	25%--	34%	29%	52%	36%	41%
Somewhat Satisfied	48%	46%	44%	44%	60%++	49%	47%	38%	50%	43%
Somewhat Dissatisfied	13%	14%	12%	10%	13%	16%	19%	6%	9%	16%
Very Dissatisfied	4%	4%	3%	4%	2%-	1%	5%	4%	5%	0%
SATISFIED WITH ACADEMIC EXPERIENCE AT U.T.K?										
Very Satisfied	20%	15%	24%	16%	17%-	22%	21%	36%	32%	16%
Somewhat Satisfied	52%	51%	50%	51%	58%+	56%	55%	49%	40%	46%
Somewhat Dissatisfied	23%	26%	21%	29%	21%	17%	23%	12%	23%	32%
Very Dissatisfied	5%	7%	5%	3%	4%-	6%	2%	3%	5%	6%

APPENDIX 10

STUDENT SATISFACTION AND RETENTION

A PRELIMINARY REPORT

William Lyons and Kent Van Liere

Learning Research Center

February, 1984

Preliminary Working Paper

UNIVERSITY OF TENNESSEE
STUDENT SATISFACTION BY COLLEGE
1983 SURVEY
LEARNING RESEARCH CENTER

In Spring of 1983, a survey of undergraduates of the University of Tennessee, Knoxville, undertaken by the Learning Research Center. Over 2000 undergraduates were queried in an attemp isolate opinions around three underlying foci: the university as a whole, the colleges, and selected departments. Reports have been forwarded to appropriate personnel at each of t levels, and some decisions have been made in response to these reports. At the University- level, the responses have been clearcut; some problems with services provided to, or made avail to all students, have been corrected. At the department level, there have likewise been adjustments, ranging from improvement of written program information to intense evaluation Individual instructors and the use of teaching assistants. However, the essence of our findi at least from the standpoint of effecting meaningful policy improvement is probably to be found the college level. We found much variation among the college on a number of topics. Whereas most meaningful variation in teaching is to be found at the department level, with virtually differences among the colleges, there was significant variation in a number of crucial dimens among the colleges. In particular, we found that the whole ambiance of student-faculty interac differed, from relatively close relationships in the College of Agriculture, to virtual stu anonymity in Engineering. Not only did student satisfaction vary among the colleges, but factors which lead to satisfaction likewise varied, with students in some colleges judging t experiences in mostly academic terms, while others attached less importance to academic cues. variation becomes important when one realizes that overall feelings of satisfaction are relate student retention. In fact, these evaluations of the university experience are just as impor in determining the likelihood of students' returning as are their grade point averages. Fro policy-making perspective, then, the import is clear. Different strategies for maximizing re tion must be undertaken in each college. The dynamics of student opinion formation are differ these opinion are formed in the context of different stimuli, and these opinions matter. A b synopsis follows:

1. Students' levels of satisfaction with their experience at the University of Tenne vary by college. These amounts are shown in Figure-1. It must be remembered that what being measured here is the students' reaction toward their entire experience at university, and not merely within their colleges. Satisfaction is not a one dimensional t that is, it can be decomposed into social and academic components. The important thing is so much the levels of satisfaction felt by each of students (Figure-2), but the determin of these levels (Figure-1).

2. The colleges vary in the degree to which academic and social satisfaction deter overall satisfaction. That is, students' overall reactions to the university are mor product of their academic experiences in some colleges than in others. Conversely, the soc experience is predominate in other situations. Overall satisfaction across the university a whole is more a product of academic than social factors, although the difference is sli and is not statistically significant.

3. Students in the professional colleges, Nursing and Architecture and, to some deg Business are somewhat unique in the way in which they react to their university experien They tend to base their conclusions on more "academic" factors than do other students, and interaction with faculty in the major seems particularly important.

4. Satisfaction is related to actual student behavior. Students who are satisfied are likely to return to the university, even when the fact of their having lower grade point taken into account.

Determinants of Satisfaction by College

AGRICULTURE

Students in the college of agriculture are fairly typical of UT students in terms of academic, social, and overall satisfaction. However, that is in reference to their university experience. They are much more satisfied with their experiences in their college. But this college level feeling is not enough to translate into a more favorable university experience. As Figure-1 shows, social experiences outweigh academic ones in accounting for the reactions of agriculture students. When we look further into the components of these social and academic evaluations, there are some interesting relationships which are relevant to all this. The main factor underlying academic satisfaction in the college of agriculture is Not the experience with the faculty in the major, but more than in any other college, with the exception of education, is GPA. That is, agriculture students' feelings of academic satisfaction are largely a product of how well they are doing, rather than their perceptions of the quality of academic programs. Simply put, then, there is not much to be done to increase these feelings. On the other hand, agriculture students are unique in what accounts for their social satisfaction. Unlike the students in any other college, those in this unit are much more satisfied if they are a member of a fraternity or sorority. Perhaps it is the physical isolation of the agricultural campus from the core of campus life, but this experience is a strong determinant of their overall social feeling, which is highly related to their overall reaction to the University of Tennessee. Thus students in the college of agriculture are happier with the atmosphere in their major, but no different than other UT students in how they relate to the entire university. Social satisfaction is important to them, and this seems to be a product of whether they are in a Greek organization.

ARCHITECTURE

Those enrolled in this college are a unique group. In many ways they are the most "academic" at the university. They are slightly more satisfied with their academic experience at the university, and slightly less satisfied with their social lives, than are students in other colleges. However, it is not so much the level of satisfaction, but the determinants of satisfaction, which are enlightening. Architecture students' overall reactions to UT are much more a product of their academic experience than of their social experiences. In this regard, they rely on their academic cues more than students in any other college. The key academic variable is the degree if interaction with the faculty in the major. To a large degree, architecture students are socially happy if they are academically pleased, but being involved with a fraternity or sorority is almost as crucial as for those in the college of agriculture. It would seem as if these students feelings toward the university could be altered by encouraging more student-faculty interaction. Unlike those in agriculture, GPA is not that crucial to academic satisfaction.

BUSINESS

Students in the college of business are somewhat happier with their social lives at the university than other students, and though no different in regard to their reaction to academics, are somewhat more positive in their overall assessments. It is clear, though from figure-1 that they are somewhat more likely to rely on academic cues in their overall judgments about UT. They are second to the architecture students in the degree to which their summary evaluations are a function of academic as opposed to social stimuli. This academic component is a function of many sub-components. Unique to this group is the importance of a good relationship with the advisor; not as important to the overall judgement of the student is his/her evaluation of randomly selected classes, most of which were in the college. Social satisfaction among business students is affected both by Greek membership and by the number of students the respondents felt they knew

well. It would seem that the college of business could maximize student feeling at the university by concentrating on the advising function and classroom performance. Both are key factors in affecting student reaction to the University.

EDUCATION

Education students are quite typical of the student body as a whole in their academic, social, and overall reactions to the university. They are also typical in the relative weights of social and academic factors in accounting for overall satisfaction. Here, as in agriculture, the main determinant of academic satisfaction is the students GPA. There is also some tendency for the evaluation of the academic experience at the university to depend on the quality of the advising in the major, and to the quality of classroom instruction as measured by the students' responses to a randomly selected class. Social satisfaction is largely a product of the number of close student relationships enjoyed by the student. Thus it seems that the college of education could increase student reaction by working on the advising system and encouraging more student interaction outside of class.

ENGINEERING

Engineering students had the worst feelings about the quality of advising and felt the most distance from the faculty in their major fields. Their overall feelings about the university were not atypical, however. Students in this college do rely a more heavily on social cues than academic ones for their summary assessments. The only strong sub-component in the social area was that of student interaction. Those with more relationships with other students were much more likely to have a better impression of the social side of the University of Tennessee. On the other hand, Fraternity/Sorority membership bore no relationship to overall social satisfaction among these students. On the academic side, the amount of interaction with faculty in the major was a strong determinant of academic satisfaction. Given the low degree of such interaction, it would seem that the college of engineering is in a particularly good position to affect a positive change in attitude among its students if a way to increase faculty-student interaction outside of the classroom can be found.

HOME ECONOMICS

Home economics student are a little less pleased with the social atmosphere at the university, and a little less pleased with the academic environment, is than the rest of the student body. Social and Academic factors are equally important in determining overall satisfaction, although the relationship is a little less strong than in the university as a whole. Academic satisfaction is mainly a function of grade point average, while social satisfaction is mainly a product of academic satisfaction. Simply put, students in this college are satisfied with their overall university experience if they are doing well, and while they have opinions about their programs, these feelings do not seem that important in forming their overall impressions of the university.

LIBERAL ARTS

While students in Liberal Arts are typical of university students as a whole, they are a little more pleased on the social dimension of campus life, and a little less pleased with their academic experiences. Likewise, social phenomena are more important than academic variables in accounting for the variation in overall satisfaction that exists in the college. The most critical component of social evaluation is the number of student relationships enjoyed by the student. Academic satisfaction throughout the college is mainly a product of GPA. Here again, one should not expect that major change in student reaction could be brought about easily. Possibly, some attempt could be made to involve students more with each other, especially since the type of involvement relevant here is outside of the Fraternity/Sorority system.

COMMUNICATIONS

Communications students are a little less satisfied with their overall experience at UT than the average student, and also a little less pleased with their academic experience. However their summary feelings are quite heavily influenced by their social experiences, more so than for any other group. Their academic evaluations are, to a great deal, a product of their GPA, and therefore not subject to much in the way of an "improvement strategy. On the other hand, there is a very strong tendency for students in this college to feel socially satisfied if they have a number of close student relationships. This feeling is especially strong in this college.

NURSING

Nursing students are the most pleased with their experience at the University. They are also second only to architecture in the importance of academic evaluations to the overall reaction to university life. The main determinant of academic happiness seems to be the interaction with faculty in the major, again, like those in architecture. The main determinant of social satisfaction is again the number of close relationships with other students.

SATISFACTION AND RETENTION

Of course, the utility of satisfaction as a concept is tied to the degree to which it affects actual student behavior. In order to ascertain this we re-examined the sample in the Fall of 1984 to see if each respondent had returned to the university. Each component of satisfaction, both academic and social was used to try to account for the return, or non-return, of the student, along with two other variables which proved to be related to retention--GPA, and the number of hours worked. It was only possible to analyze the entire sample in this manner. Thus while there is a good degree of evidence that the components of satisfaction vary by college, the import of satisfaction will only be gauged for the whole university.

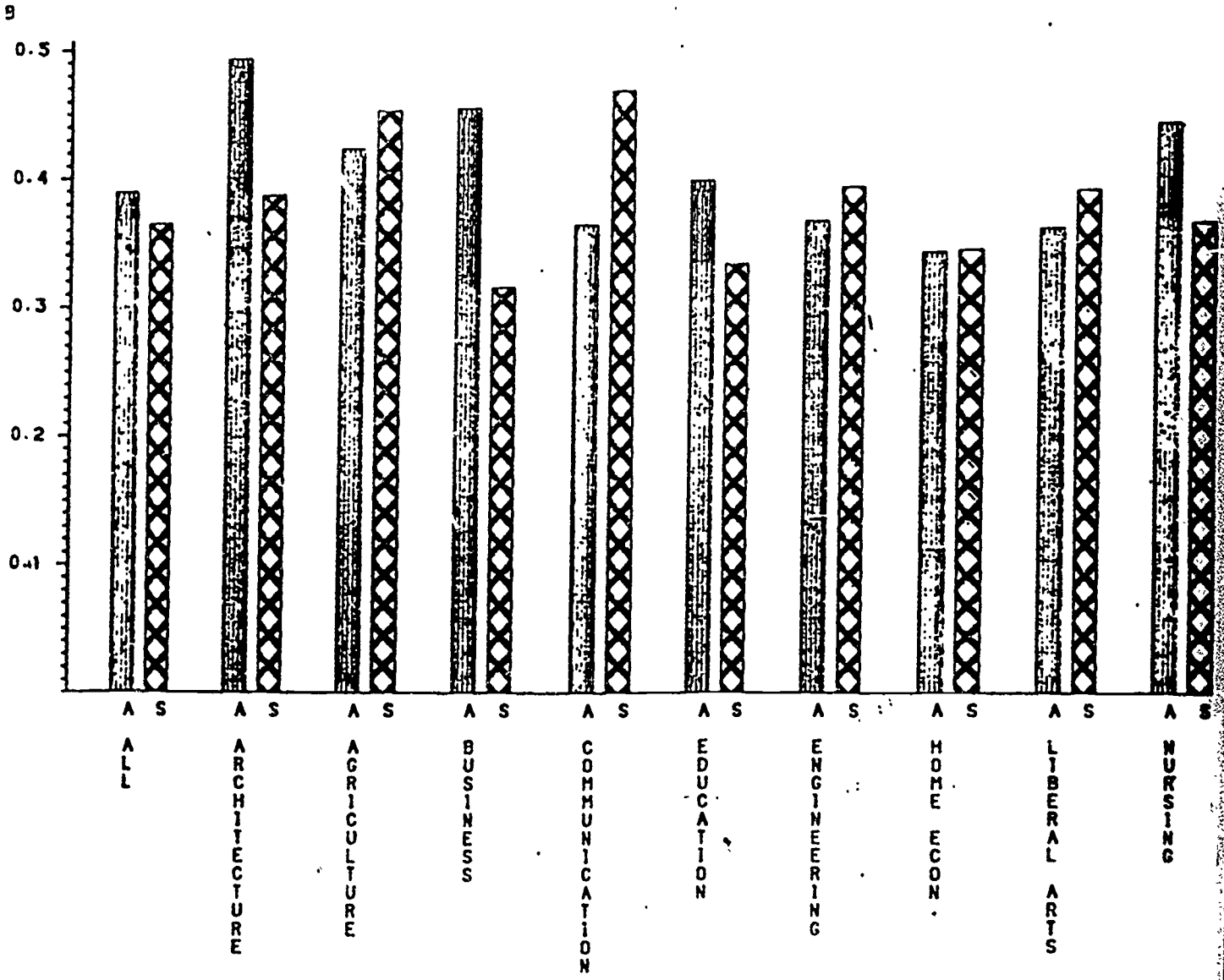
Our findings for the whole university indicate that academic satisfaction is slightly more likely to affect a students' likelihood of returning to UT than is social satisfaction. When the components are combined, they are statistically significant in a model of retention, along with a student's gradepoint and the number of hours worked per week. Of these variables, satisfaction is the strongest predictor. It is important to note this relationship holds when GPA is taken into account, statistically, or controlled for. Thus even though it is the students who have higher averages who are more pleased with their experiences at the University, there is something unique about satisfaction apart from the degree to which it taps how well a student is doing. These judgments tap something that is strong enough to affect a student's decision to return to the university. Finally, this decision to return is also affected by the number of hours the student works. Those who work are less likely to come back. Probably this is a function of financial hardship for most of the respondents.

In conclusion, dissatisfied students, along with those who are doing badly are likely to leave the university, along with those who are working. Each of these refers to a unique component of the student's experience. Their evaluations of what they find are certainly germane to their behavior, that is, what they think of the quality of their experience is every bit as important to them as how well they do and how financially strained they are.

FIGURE 1

OVERALL SATISFACTION AS AFFECTED BY ACADEMIC AND SOCIAL SATISFACTION

FOR ALL STUDENTS & BY COLLEGE



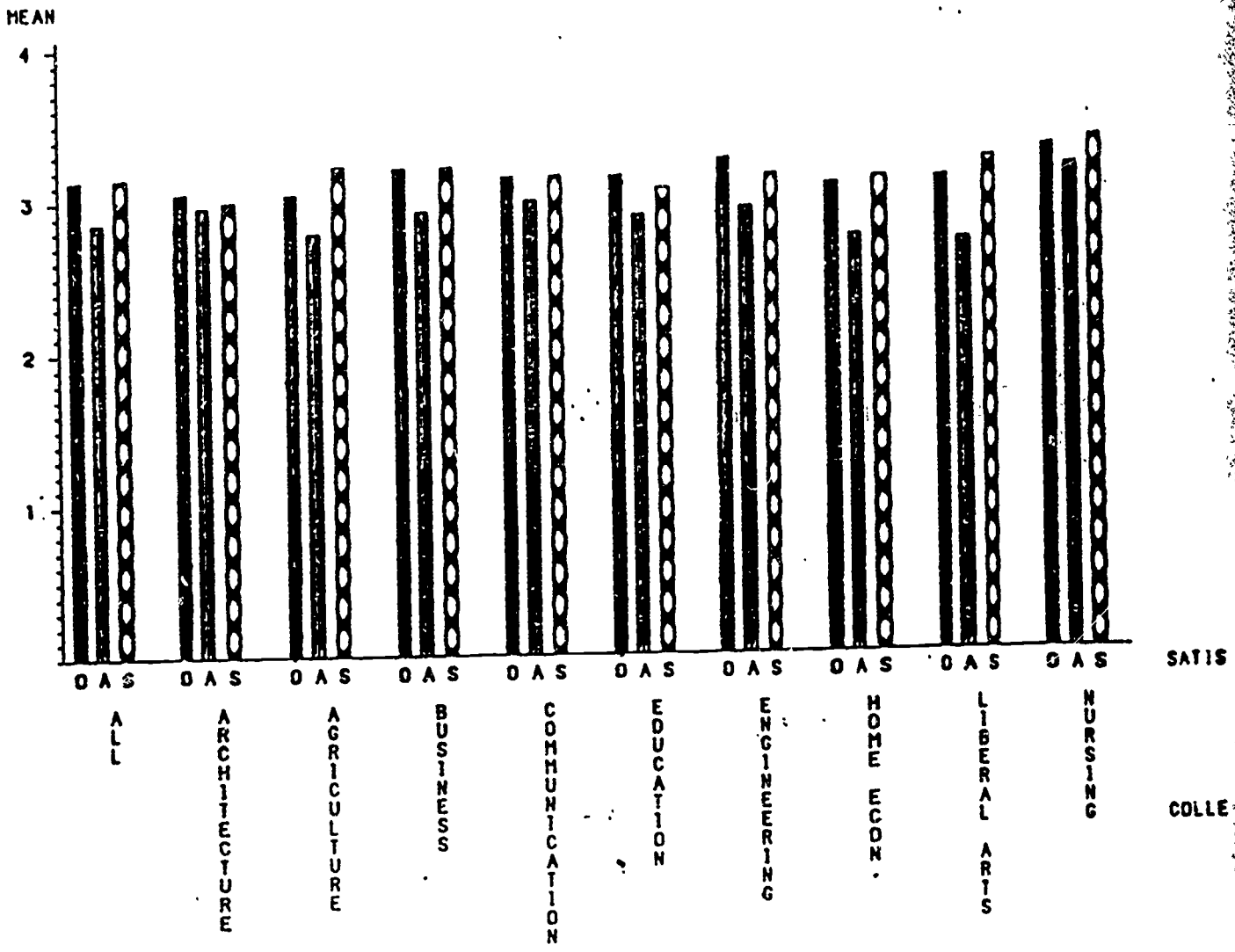
UNSTANDARDIZED REGRESSION COEFFICIENTS
N=809

LEARNING RESEARCH CENTER
STUDENT SATISFACTION SURVEY, SPRING 1983

FIGURE 2

SATISFACTION: OVERALL, ACADEMIC AND SOCIAL

FOR ALL STUDENTS & BY COLLEGE



KEY: O = OVERALL A = ACADEMIC S = SOCIAL

N=809

LEARNING RESEARCH CENTER
STUDENT SATISFACTION SURVEY, SPRING 1983

TABLE-1

Major Determinants of Academic Satisfaction: By College

College	
Architecture	- Interaction with faculty in the major
Agricuture	- GPA
Business	- Interaction - Advisor, GPA, Instruction
Education	- GPA - Interaction with Advisor
Engineering	- Interaction with faculty in the major
Home Economics	- GPA
Liberal Arts	- GPA
Communications	- GPA - Availity of Instruction
Nursing	-Interaction with faculty in the major

Major Determinants of Social Satisfaction: By College

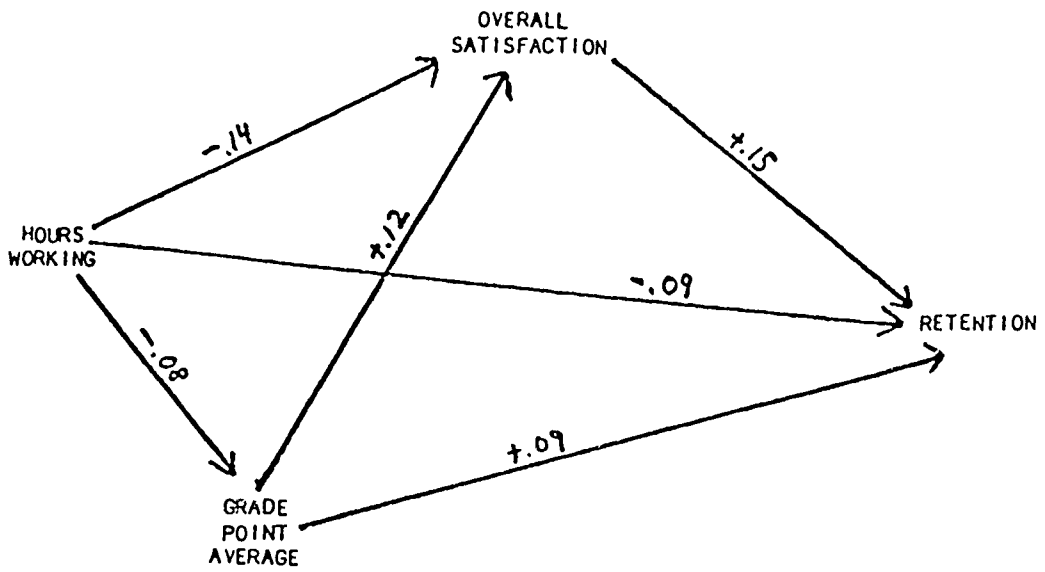
College	
Architecture	- Greek, Academic Satisfaction
Agriculture	- Greek
Business	- #Close Relationships/Students, Greek
Education	- Academic Satisfaction, #Close Relationship/Students
Engineering	- #Close Relationships/Students
Home Economics	- Academic Satisfaction
Liberal Arts	- #Close Relationships/Students
Communications	- #Close Relationships/Students, Greek
Nursing	- #Close Relationships/Students

TABLE 18

SELECTED STUDENT OPINIONS AND CHARACTERISTICS: MEANS BY COLLEGE

Characteristic	Univ.	L.A.	Bus.	Agr.	Eng.	H.E.	Arch.	Nur.	Educ.	Comm
SEX										
Male	52%	48%	61%	65%	82%	12%	80%	8%	23%	35%
Female	48%	52%	39%	35%	18%	88%	20%	92%	77%	65%
RESIDENCE										
Dormitory	44%	42%	42%	31%	55%	52%	52%	51%	47%	40%
Apartment	27%	25%	29%	33%	28%	28%	35%	26%	20%	27%
Fraternity	3%	5%	4%	9%	4%	0%	4%	0%	1%	2%
Home	26%	28%	25%	26%	14%	20%	9%	24%	22%	31%
COMMUNITY OF ORIGIN										
Farm	5%	5%	3%	27%	5%	11%	5%	7%	2%	4%
Non-farm Rural	11%	9%	7%	24%	12%	10%	15%	18%	11%	17%
Town Under 2,500	3%	2%	1%	3%	4%	3%	5%	6%	8%	2%
Town 2,500 - 25,000	16%	13%	21%	4%	19%	19%	11%	14%	17%	13%
Town 25,000 - 100,000	24%	26%	21%	19%	24%	21%	26%	19%	35%	24%
City Over 100,000	42%	45%	48%	22%	38%	36%	39%	37%	28%	39%
HOURS WORKING										
None	54%	53%	50%	46%	65%	60%	63%	66%	57%	40%
1 - 9 Hours	9%	8%	9%	15%	12%	7%	10%	7%	9%	7%
10 - 19 Hours	15%	18%	13%	18%	9%	15%	18%	13%	14%	22%
20 or over Hours	22%	21%	28%	22%	14%	18%	10%	13%	20%	31%
PROPORTION OF EDUCATION PAID BY PARENTS										
More Than half	59%	62%	68%	52%	48%	67%	63%	58%	57%	63%
Less Than half	15%	13%	10%	24%	26%	17%	17%	15%	11%	19%
None	26%	25%	21%	24%	26%	17%	20%	26%	32%	18%
NUMBER OF CLOSE RELATIONSHIPS WITH FACULTY										
None	48%	41%	55%	35%	69%	44%	47%	47%	37%	46%
One	13%	14%	12%	9%	12%	13%	16%	7%	16%	20%
Two	17%	23%	10%	21%	10%	19%	10%	23%	25%	14%
Three or More	22%	23%	23%	35%	10%	24%	27%	23%	22%	20%
HOURS ON CAMPUS EACH WEEK OUTSIDE OF CLASS										
Under 10	29%	31%	27%	29%	21%	22%	7%	38%	45%	34%
10 - 20	14%	14%	14%	19%	17%	17%	13%	10%	9%	12%
20 - 30	8%	7%	9%	13%	4%	14%	11%	8%	5%	11%
Over 30	49%	47%	50%	38%	59%	48%	69%	44%	42%	43%
FRATERNITY OR SORORITY?										
Yes	22%	22%	35%	29%	13%	26%	13%	28%	12%	28%
No	78%	78%	65%	71%	87%	74%	87%	72%	88%	72%
SATISFIED WITH SOCIAL EXPERIENCE AT U.T.K?										
Very Satisfied	36%	36%	41%	41%	25%	34%	29%	52%	36%	41%
Somewhat Satisfied	48%	46%	44%	44%	60%	49%	47%	38%	50%	43%
Somewhat Dissatisfied	13%	14%	12%	10%	13%	16%	19%	6%	9%	16%
Very Dissatisfied	4%	4%	3%	4%	2%	1%	5%	4%	5%	0%
SATISFIED WITH ACADEMIC EXPERIENCE AT U.T.K?										
Very Satisfied	20%	15%	24%	16%	17%	22%	21%	36%	32%	16%
Somewhat Satisfied	52%	51%	50%	51%	58%	56%	55%	49%	40%	46%
Somewhat Dissatisfied	23%	26%	21%	29%	21%	17%	23%	12%	23%	32%
Very Dissatisfied	5%	7%	5%	3%	4%	6%	2%	3%	5%	6%

MODEL OF STUDENT RETENTION AT THE UNIVERSITY OF TENNESSEE



CONCLUSIONS

1. The degree to which a student works has an impact on his/her likelihood of returning, with working leading to a decision not to return. This effect is both direct and direct, that is working lowers GPA, which lowers the likelihood of returning, and working also lowers satisfaction with the university, which likewise lowers the likelihood of returning.

2. Students' GPA's are related to their retention also, with a lower GPA lessening the likelihood of return, as well as contributing to a lesser degree of satisfaction, which also has a direct impact upon student retention.

3. Overall satisfaction is directly related to retention, and is the variable manifesting the largest direct effect. That is, taking into account whether a student works and his/her GPA, satisfaction is the most important variable in determining whether a student returns.

4. Though this model is for the entire university, the determinants of overall satisfaction vary by college. In any case, the one variable reflecting student opinion, or their reactions to what they experience, is the most important cue students use in making the decision to return. While there is probably very little that can be done about reducing student needs to work, and nothing ethically which can be done to increase GPA, colleges and departments do have some strategies which can be pursued in order to effect a more satisfied student population.

5. One must not overemphasize the degree to which massive changes are possible. We are only able to explain a small part of the variation in decisions to return, and many of the factors affecting these decisions are beyond anyone's control. However, those factors which are subject to improving are those which can be addressed in the context of improving the quality of programs.

6. This model is based on the 1983 student satisfaction survey (General University Sample.. n=910)

APPENDIX 11

RESULTS OF FRESHMAN COMP TESTING

University of Tennessee, Knoxville

Fall 1983

Prepared by
Learning Research Center
University of Tennessee, Knoxville
1819 Andy Holt Avenue
Knoxville, TN 37996
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Results of FRESHMAN COMP Testing

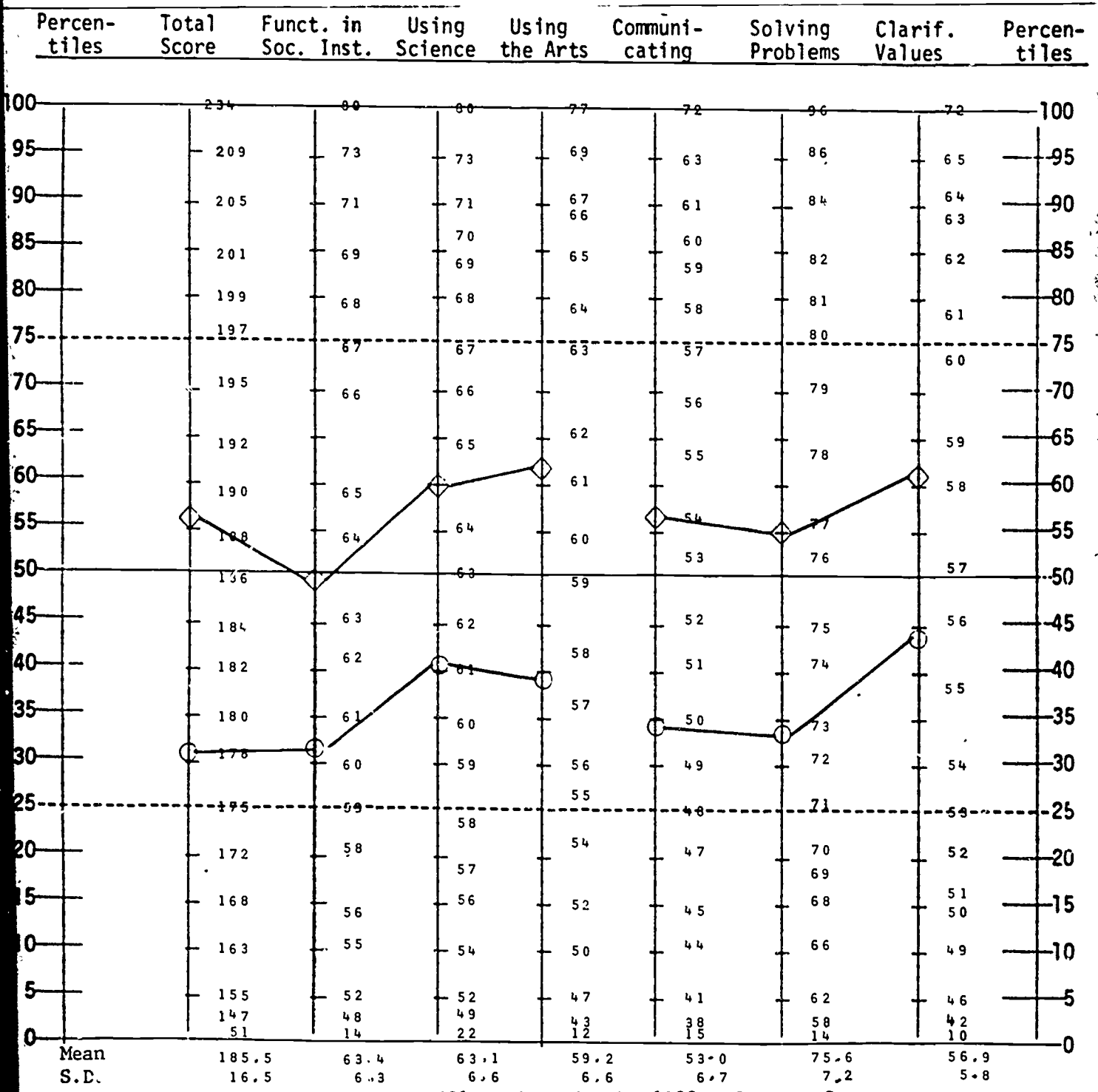
Fall 1983

College	Number Tested	Mean ACT Composite	COMP Total	TOTAL Percentile Rank	FSI Percentile Rank	US Percentile Rank	UA Percentile Rank	COM Percentile Rank	SP Percentile Rank	CV Percentile Rank
Agriculture	23	22.9	178.6	58	52	65	61	53	55	70
Architecture	18	23.6	179.3	60	50	70	62	61	55	67
Business	101	22.1	175.0	50	47	55	57	50	52	58
Communications	35	21.9	179.3	60	54	63	67	57	60	66
Education	15	21.2	175.5	51	50	52	61	41	58	61
Engineering	142	24.7	181.2	64	59	66	68	62	63	68
Home Economics	15	21.3	178.9	59	44	73	61	57	58	66
Liberal Arts	136	23.1	178.9	59	55	60	64	55	60	66
Nursing	16	20.8	175.0	49	49	55	57	44	59	50
University	120	21.0	175.7	51	50	57	57	54	51	58
Total	621	22.7	178.0	57	53	61	62	55	56	64
1983 Seniors	700	22.3	188.9	*	*	*	*	*	*	*
		EST. GAIN	10.9							

* Percentile ranks for freshmen and seniors are not comparable because different institutions comprise the two norm groups on which the ranks are based.

SAMPLE MEANS FOR COMP
PLOTTED ON A PERCENTILE TABLE FOR 15,581 SENIORS AT 73 INSTITUTIONS

Key: ○ = Means for 621 FRESHMEN tested 9/83 (ACT Mean = 22.68)
◇ = Means for 700 SENIORS tested 5/83 (ACT Mean = 22.26)



Description of the 15,581 Seniors in the 1983 Reference Group.

45% Men
55% Women

Area of Interest
48% Social Sciences
Natural Sciences
Arts/Humanities

Age Range
1% Age 19 or below
59% Age 20-22
30% Age 23-30
10% Over 30
ACT Composite (or equivalent for SAT Total) scores available for 9364 Seniors. Mean 21.0

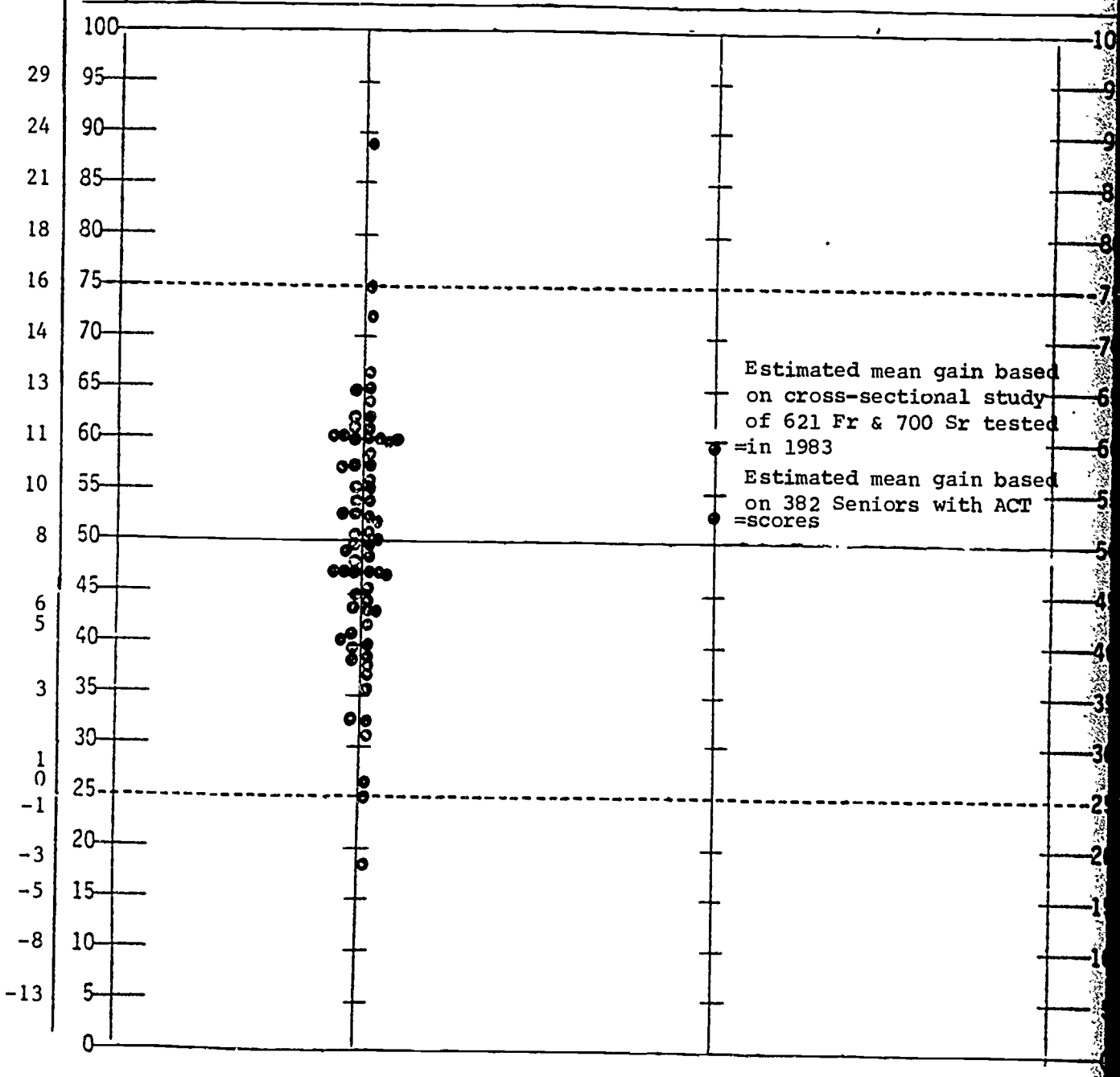
198

ACT Composite Range
2% below 10
6% 10-12
10% 13-15
14% 16-18
18% 19-21
20% 22-24
18% 25-27
10% 28-30
2% over 30

Table 11

Estimated COMP Total Score Gains for Seniors

(Concordance Table for estimating score gains based on 7199 entering freshmen at 39 institutions; Percentile Table based on gains for 9221 seniors at 65 institutions.)



*See reverse side

67 SENIOR INSTITUTIONS FOR WHOM MEAN SCORE GAINS
ARE PLOTTED ON REVERSE SIDE

Allentown College
Andrews University
Augustana College
Austin Peay State University
Baylor University
Bethel College
Bryan College
Capital University
Central University
Clarion State College
College of Notre Dame of Maryland
Davis & Elkins College
Doane College
East Tennessee State University
Eastern Kentucky University
Freed-Hardeman College
Friends University
Glassboro State University
Illinois Wesleyan University
Incarnate Word College
Iowa Wesleyan College
Le Moyne College
Lincoln University
Louisiana State University
Loyola University of Chicago
Loyola University of New Orleans
Marion College
Marymount College of Virginia
Maryville State College
Marywood College
Memphis State University
Michigan State University
Middle Tennessee State University
Morningside College
Mount Marty College
Mount St. Mary's College
Nebraska Wesleyan University
Northeast Missouri State University
Ohio University
Ouachita Baptist University
Our Lady of the Lake University
Pennsylvania State University
Rochester Institute of Technology
Rockhurst College
St. Ambrose College
St. Mary College (Kansas)
Seattle University
State University of New York at Plattsburgh
Tennessee State University
Tennessee Technological University
Texas Christian University
The King's College (New York)
University of Illinois
University of Iowa
University of Northern Colorado
University of Puget Sound
University of Rhoad Island
University of Tennessee - Chattanooga
University of Tennessee - Knoxville
University of Tennessee - Martin
Upsala College
Valley City State College
Westmont College
William Jewell College
William Penn College
William Paterson College
York College of Pennsylvania

COMP Scales

- Communicating: Can send and receive information in a variety of modes (written, graphic, oral, numeric, and symbolic), within a variety of settings (one-to-one, in small and large groups), and for a variety of purposes (for example, to inform, to understand, to persuade, and to analyze).
- Solving Problems: Can analyze a variety of problems (for example, scientific, social, personal); select or create solutions to problems; and implement solutions.
- Clarifying Values: Can identify one's personal values and the personal values of other individuals; understand how personal values develop; and analyze the implications of decisions made on the basis of personally held values.
- Functioning within Social Institutions: Can identify those activities and institutions which constitute the social aspects of a culture (for example, governmental and economic systems, religion, marital and familial institutions, employment, and civic volunteer and recreational organizations); understand the impact that social institutions have on individuals in a culture; and analyze one's own and others' personal functioning within social institutions.
- Using Science and Technology: Can identify those activities and products which constitute the scientific/technological aspects of a culture (for example, transportation, housing, energy, processed food, clothing, health maintenance, entertainment and recreation, mood-altering, national defense, communication, and data processing); understand the impact of such activities and products on the individuals and the physical environment in a culture; and analyze the uses of technological products in a culture and one's personal use of such products.
- Using the Arts: Can identify those activities and products which constitute the artistic aspects of a culture (for example, graphic art, music, drama, literature, dance, sculpture, film, architecture); understand the impact that art, in its various forms, has on individuals in a culture; and analyze uses of works of art within a culture and one's personal use of art.

Response of Freshmen to Items Added to
COMP Answer Sheet

D In deciding to go to college, which of the following reasons was most important to you? (Mark only one response.) -

Response Percentage	
56	To prepare myself for getting a better job
21	To prepare myself for graduate or professional school
8	To learn more about things that interest me
7	To enable me to make more money
6	To gain a general education and an appreciation of a wide range of ideas
1	To meet new and interesting people
.6	To increase my appreciation of culture
.6	My parents wanted me to go
.3	I wanted to get away from home
0	To improve my reading and study skills

E Where do you plan to live during your first quarter at UTK?

78% - Dormitory 20% - At home 2% - Apartment

F During the Fall Quarter, about how many hours per week do you plan to spend working for wages?

69% - I do not plan to work 18% - 10 to 19 hours/week .6% - 30 or more hrs./wk.
7% - 1 to 9 hours/week 5% - 20 to 29 hours/week

G In deciding to attend UTK, which of the following reasons was most important to you? (Mark only one response.)

34	UTK offers a strong program in my field of interest
22	UTK is close to my home
13	UTK has a very good academic reputation
8	Someone who had attended UTK advised me to come here
6	My relatives wanted me to come to UTK
5	I was offered financial assistance
4	A friend suggested I come to UTK
4	UTK has low tuition
2	A representative of UTK recruited me
1	My guidance counselor advised me to come to UTK

121 Are you currently classified as an in-state or out-of-state student at UTK?

86% - In-state 14% - Out-of-state

122 What is your marital status?

99% - Single .5% - Married .2% - Divorced

123 In which type of community did you receive most of your education prior to college?

8 Rural area or small town (town less than 2500)
34 Town of 2500 to 25,000
28 City of 25,000 to 100,000
23 Suburbs of city over 100,000
7 Inner-city (city over 100,000)

124 What was the highest level of education attained by your mother?

7 Did not graduate from high school
30 High school graduate
31 Beyond high school but did not complete 4 years of college
20 Graduate of four-year college
12 Attended graduate or professional school

125 What was the highest level of education attained by your father?

8 Did not graduate from high school
19 High school graduate
21 Beyond high school but did not complete 4 years of college
30 Graduate of a four-year college
23 Attended graduate or professional school

126 Before deciding to come to UTK you probably received written information from a number of colleges and universities which described their academic programs and student services. Compared with the information you received from other colleges, was that which you received from UTK

22 More helpful?
60 About as helpful?
8 Not as helpful?
10 I received no information from UTK?

127 Students hear many things about the reputation of a university before they enroll. Which of the following aspects of the UTK reputation was most attractive to you as you made your decision to enroll here? (Mark only one response.)

51 Quality of academic programs
19 Quality of social life
8 Quality of cultural and recreational activities for students
4 Quality of the athletics program
18 None of the above

APPENDIX 12

Issues for Discussion in UTK Budget Hearings-1984

ISSUES FOR DISCUSSION IN FY 85 BUDGET HEARINGS
University of Tennessee, Knoxville

I. Describe the mission of the unit and its relationship to the UTK mission.

II. List the goals and supporting objectives which the unit has established to carry out its mission and identify additional resources required to achieve the objectives. (Section XI below and the attached form provide for the detailed reporting of new resource requirements.)

III. Can the unit use enrollment reductions to improve quality and/or achieve other goals?

IV. If the unit has had an academic program review within the last five years, discuss the recommendations which have been implemented and those which remain to be implemented, noting any barriers to implementation.

V. What does the unit consider to be its greatest strengths? Its major weaknesses?

VI. What potential exists for the unit to achieve (or maintain) national or regional prominence? Discuss the related resource requirements and the criteria used to ascertain the relative position of the unit. (Such factors may include, but are not limited to, quality of students; quality of faculty; quality and volume of research; and program quality as indicated by assessments of student outcomes, national rankings, academic program reviews, and other peer assessments.)

VII. Specify the unit's potential uses of research incentive funds. What is the estimated ratio of dollars returned to each dollar invested? What qualitative improvements in research could be underwritten through an investment of research incentive funds?

VIII. What is the perceived need within the unit for central funding for faculty development opportunities?

IX. What are the unit's highest priorities for improvements in facilities?

X. If the unit is presently charging laboratory fees, indicate the level of fees charged and the basis for the charge. If the unit is not presently charging a lab fee and has a rationale for proposing the implementation of such a fee, indicate the proposed level and rationale for the fee.

XI. Using the attached form, provide the requested information for the funding adjustments required during the next three years to accomplish the goals and objectives of the unit.